

DTC-A6

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model



Model Name Using Similar Mechanism	DTC-790
Tape Transport Mechanism Type	DATM-110

SPECIFICATIONS

System

Tape	Digital audio tape
Recording head	Rotary head
Recording time (when using DT-120)	Standard: 120 minutes Long-play: 240 minutes
Tape speed	Standard: 8.15 mm/s Long-play: 4.075 mm/s
Drum rotation	Standard: 2,000 rpm Long-play: 1,000 rpm
Track pitch	13.6 μ m (20.4 μ m)
Sampling frequency	48 kHz, 44.1 kHz, 32 kHz
Number of channels	2 channels, stereo
D/A conversion (quantization)	Standard: 16-bit linear Long-play: 12-bit non-linear
Frequency response*	Standard: 2 - 22,000 Hz (± 0.5 dB) Long-play: 2 - 14,500 Hz (± 0.5 dB)
Signal-to-noise ratio*	90 dB or more (Standard and long-play mode)
Dynamic range*	90 dB or more (Standard and long-play mode)
Total harmonic distortion*	Standard: 0.005% or less (1 kHz) Long-play: 0.008% or less (1 kHz)
Wow and flutter	Below measurable limit ($\pm 0.001\%$ W.PEAK)

* During analog input with the SBM function off.

Input Connectors

Connector	Jack type	Input impedance	Rated input level
ANALOG (LINE)	Phono jacks	47 kilohms	-4 dBs
DIGITAL OPTICAL	Optical connector	—	—
DIGITAL COAXIAL	Phono jack	75 ohms	0.5 Vp-p

Output Connectors

Connector	Jack type	Output impedance	Rated output level	Load impedance
ANALOG (LINE)	Phono jacks	470 ohms	-4 dBs	10 kilohms or more
DIGITAL OPTICAL	Optical connector	—	(wavelength 660nm)	—
DIGITAL COAXIAL	Phono jack	75 Ω	0.5 Vp-p	75 Ω
HEADPHONES	Stereo phone-plug jack	100 ohms	1.2 mW	32 ohms

DIGITAL AUDIO TAPE DECK
SONY[®]



General section

Power requirements

Where purchased	Power requirements
U.S.A./Canada	120 V AC, 60 Hz
Europe	220 - 230 V AC, 50/60 Hz

Power consumption 30 W

Dimensions Approx 430 × 122 × 325 mm (w/h/d)
(17 × 4⁷/₈ × 12⁷/₈ inches)

Weight Approx 5.0 kg (11 lb 0.4 oz)

Remote commander RM-D9 (supplied)

Dimensions Approx 45 × 185 × 20 mm (w/h/d)
(1¹³/₁₆ × 7³/₈ × 1³/₁₆ inches)

Weight Approx 100 g (3.5 oz) incl. batteries

Supplied accessories See page 4.

Design and specifications are subject to change without notice.

PRECAUTIONS FOR INSPECTIONS AND REPAIR WITH POWER OFF

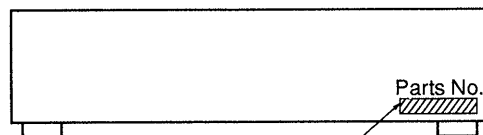
Before beginning repair work after turning OFF the main switch, be sure to first remove CN901 (EH5P), 902 (EH6P) of the main board. When assembling the equipment, be sure to plug this connector last. Even with the main switch turned off, there still remain electrical charges in part of the power circuit. Therefore, plugging in or removing the connector could cause the power supply terminal to short with an adjacent terminal. This could cause possible component damage.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

MODEL IDENTIFICATION

— Back Panel —



3-936-350-0□: US, Canadian model
3-936-350-1□: AEP, UK model

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK \triangle OR DOTTED LINE WITH MARK \triangle ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE \triangle SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer: Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE

The AC leakage from any exposed metal part to earth Ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

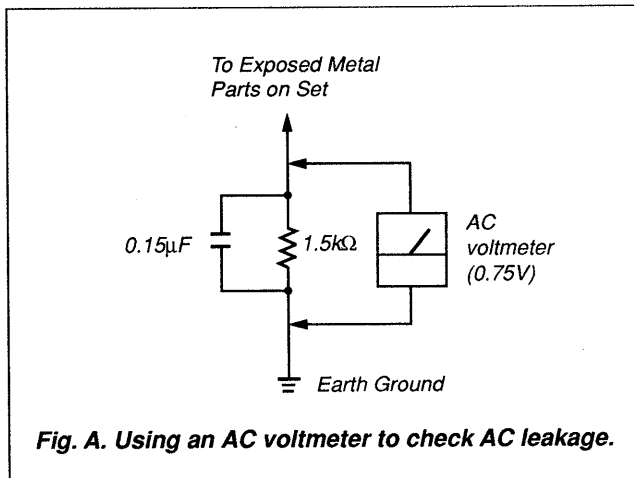


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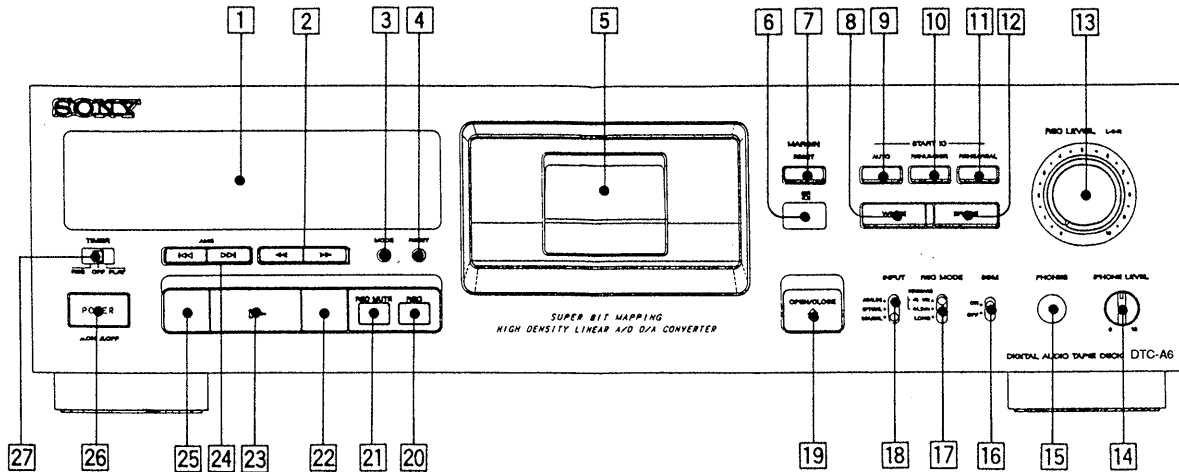
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SECTION 1

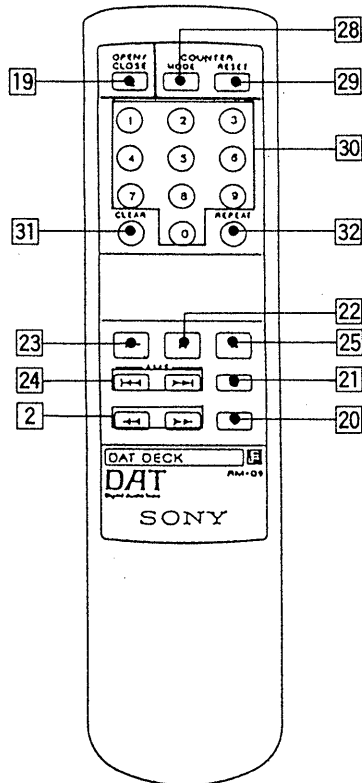
GENERAL

Location of Parts and Controls.

Front panel



Remote commander



- 1 Display window
- 2 ◀◀/▶▶ (REW/FF) buttons
- 3 MODE button
- 4 RESET button
- 5 Cassette holder
- 6 Remote sensor
- 7 MARGIN RESET button
- 8 WRITE button
- 9 START ID AUTO button
- 10 START ID RENUMBER button
- 11 START ID REHEARSAL button
- 12 ERASE button
- 13 REC LEVEL knob
- 14 PHONE LEVEL knob
- 15 PHONES jack
- 16 SBM button
- 17 REC MODE switch
- 18 INPUT switch
- 19 ▲ OPEN / CLOSE button
- 20 ● REC button
- 21 ○ REC MUTE button
- 22 ■ PAUSE button
- 23 ▶ PLAY button
- 24 ◀◀ / ▶▶ AMS, PREVIOUS / NEXT buttons
- 25 ■ STOP button
- 26 POWER button
- 27 TIMER button
- 28 COUNTER MODE button
- 29 COUNTER RESET button
- 30 Numeric buttons
- 31 CLEAR button
- 32 REPEAT button

SECTION 2

DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

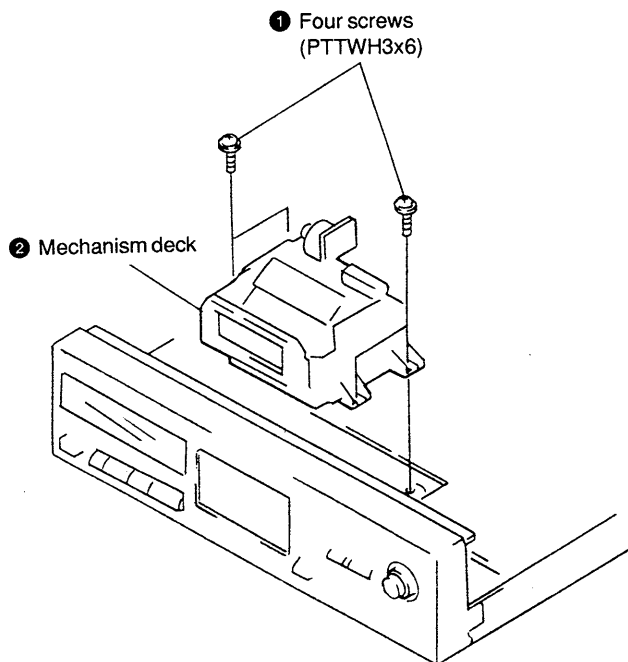
2-1. CASE

Unscrew the four case attachment screws and remove the case.

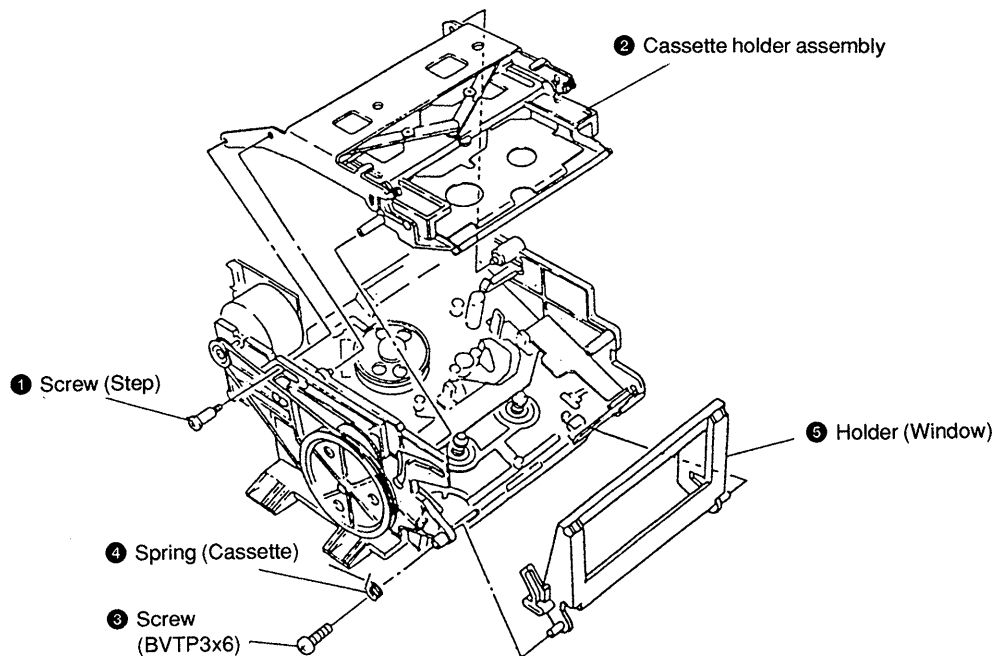
2-2. CASSETTE WINDOW

- ① Press the OPEN/CLOSE switch to effect LOADING OUT STATE (if power is not supplied) rotate the pulley in the left side of the Mechanism Deck counterclockwise.)
- ② Remove the cassette by lifting the window up.

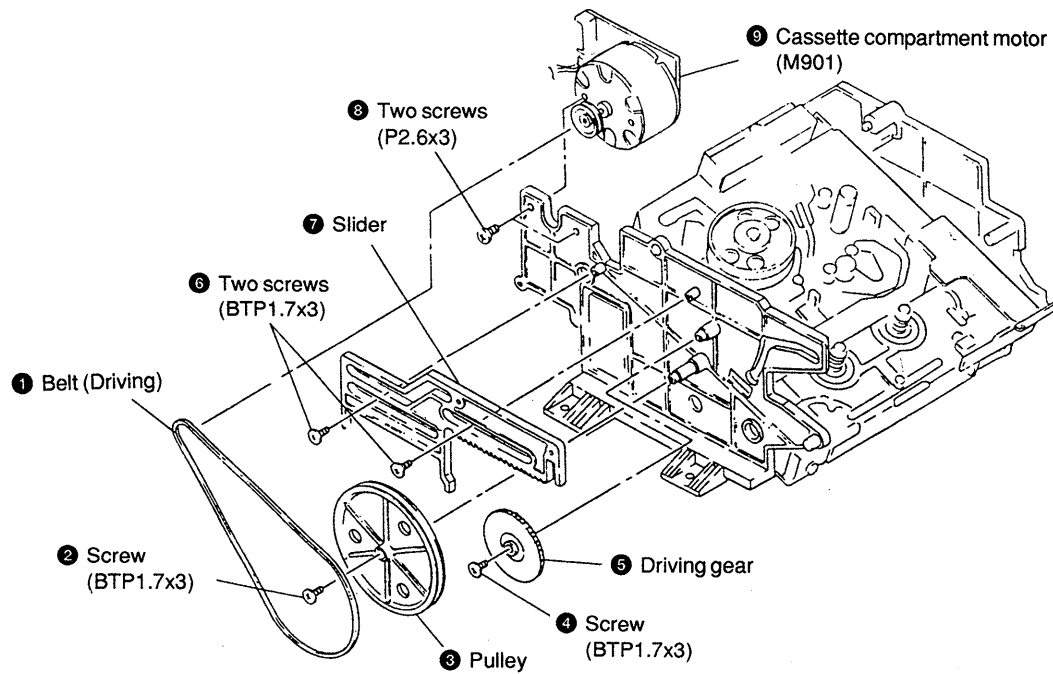
2-3. MECHANISM DECK



2-4. CASSETTE HOLDER ASSEMBLY

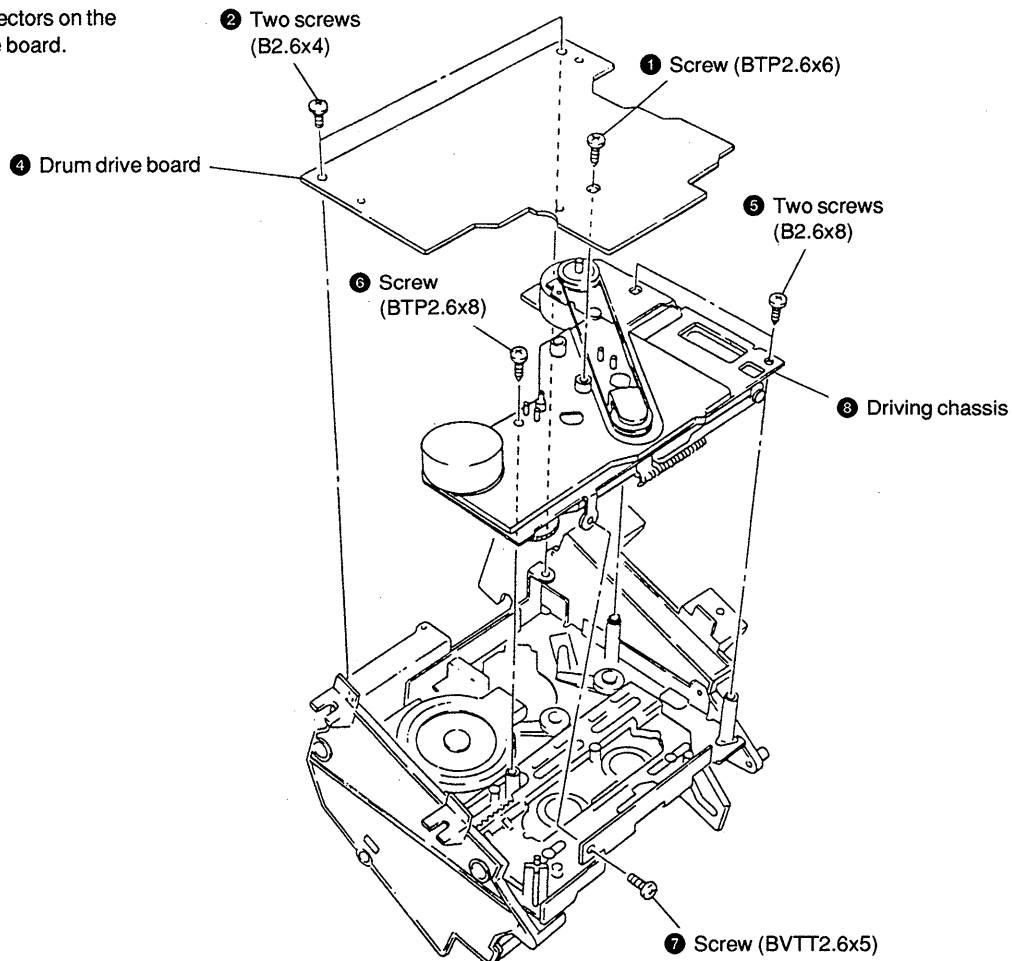


2-5. CASSETTE COMPARTMENT MOTOR (M901), PULLEY, DRIVING GEAR AND SLIDER



2-6. DRUM DRIVE BOARD AND DRIVING CHASSIS

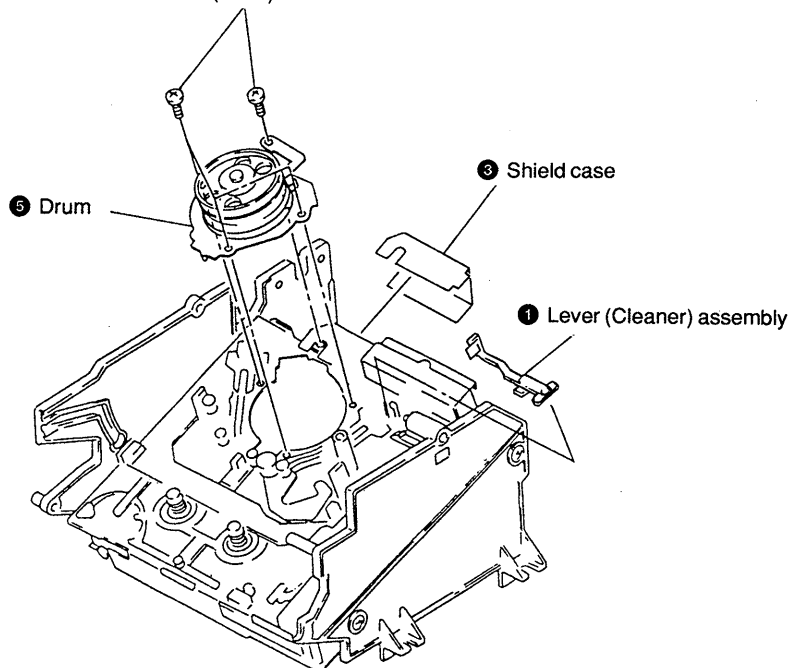
- 3 Remove the lead wires from connectors on the drum drive board.



2-7. DRUM

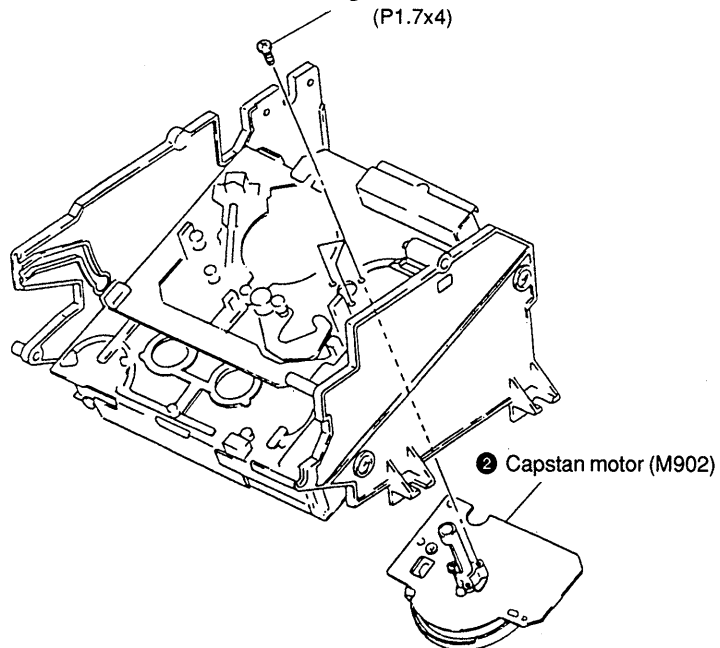
- ④ Remove the drum lead wires from connectors.

- ② Four screws (B2x4)



2-8. CAPSTAN MOTOR (M902)

- ① Three screws (P1.7x4)



SECTION 3 ADJUSTMENTS

Notes When Making Adjustments

1. Adjustments should be performed in the order listed.
2. Use the following test tapes:

TY-7111X (8-909-823-00)	Level
TY-7252 (8-909-822-00)	Tracking
TY-7551 (8-909-814-00)	Functions
TY-30B (8-892-358-00)	Blank

Use the following torque meter:

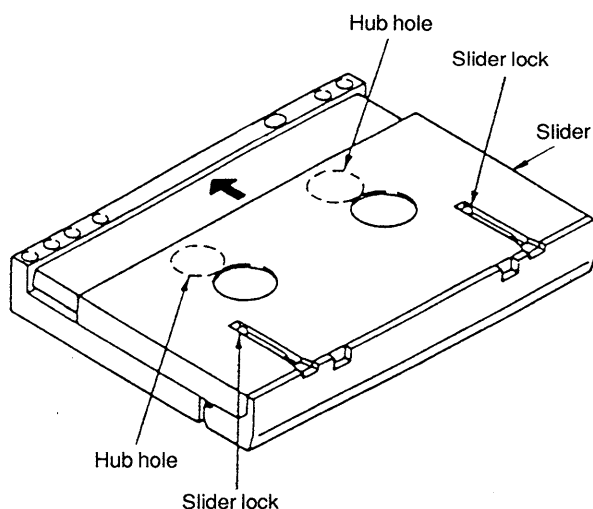
TW-7131 (8-909-708-71) FWD

3. Switches and controls should be set as follows unless otherwise specified.

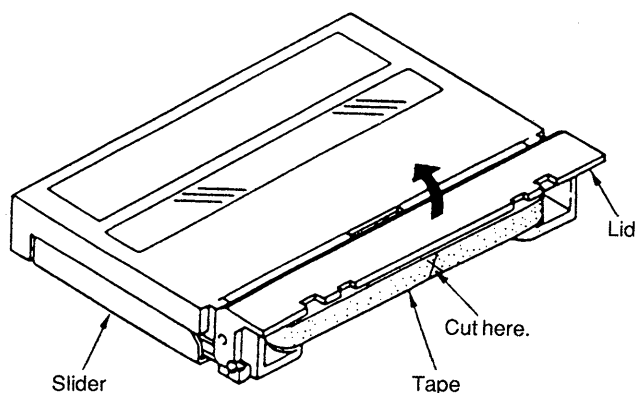
TIMER switch	: OFF
REC MODE switch	: LONG
INPUT switch	: COAXIAL
SBM switch	: OFF
REC LEVEL control	: Min.
PHONE LEVEL control	: Min.

4. Creating an end sensor cassette

- (1) Press the tape slider lock and move the slider in the direction indicated by the arrow.



- (2) Open the lid and cut the tape.



- (3) Turn the hubs until the tape is completely inside the cassette (both T and S sides).
The end sensor cassette for end sensor adjustment is now ready for use.

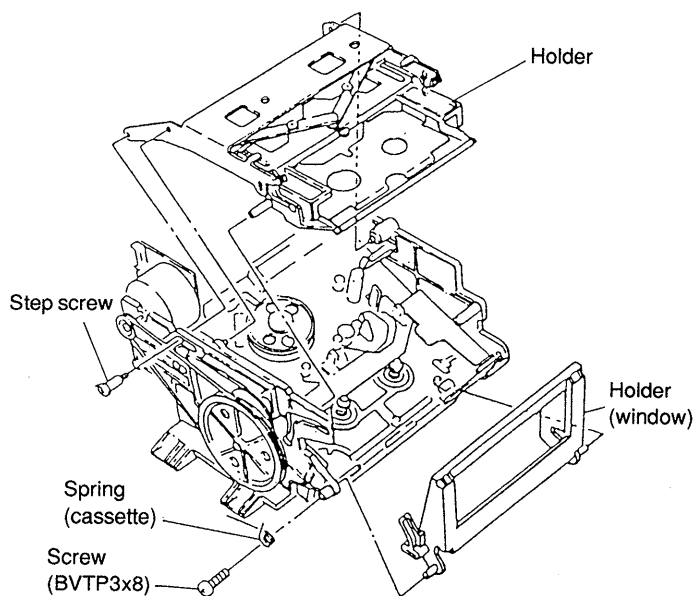
5. Cleaning of the Revolving Drum

- (1) Fold a chamois (2-034-697-00) or a knit cloth into 4 or more files, slightly impregnate it with a cleaning liquid (9-919-573-00), and softly touch the drum with it and manually rotate the drum slowly counterclockwise by 2 to 3 turns for cleaning.
- (2) At that time, be careful not to move the chamois vertically to the head tip. Otherwise, the head tip may probably be damaged.

6. Be careful not to move RV1 to RV2 on the RF AMP board in the mechanism assembly.

7. To adjust the tape path and guides, remove the holder assembly as shown in the diagram and use the DAT holder jig (J-8000-002-A). This will make it easier to perform the adjustments.

- First turning the pulley counterclockwise to put it in loading out status will make removal and reattachment of the holder assembly easier.
- To perform adjustments, turn the pulley clockwise to put it in loading in status, load the cassette tape and set the IN switch to the ON position.



8. Test mode

- (1) Test mode (main)

To set the test mode, short-circuit JW091 (X TEST) and ground of the main board. (At this time, the dB display of the fluorescent display level meter will blink.)

Perform the following adjustments in the test mode.

- FWD torque adjustment
 - FWD back tension check
 - Tape path fine adjustments
 - DPG adjustment
 - AGC voltage check
 - End sensor check
- To reset the test mode (main), disconnect the wire shorting JW091 (X TEST) and ground. After completion of adjusting, be sure to reset the test mode (main).

(2) Test mode (display)

Setting:

TIMER switch : Center click
INPUT switch : Center click
REC MODE switch : Center click

- 1) Disconnect CN901 and CN902 of the main board after turning off the power supply.
- 2) Short-circuit the testland (TEST) and ground of the display board.
- 3) To check the fluorescent display, insert CN901 and CN902 and turn on the power.

Each grid of the fluorescent display tube sequentially lights up while all tubes being lighted up finally.

≥

Level meters go out one after one.

≥

When all the level meter go off, the NEXT RMC will be displayed.

≥

Every time the panel switch is operated, one level meter goes off from the left, the dB display of level meter will be disappeared finally.

≥

The NEXT RMC will be displayed when the STOP (■) button is pressed.

- To reset the test mode, turn the power off and disconnect the wire shorting test land (TEST) and ground.

9. Check the following items for correct tape speed, after completion of adjusting.

- (1) Set the REC MODE switch to 48k and check for normal recording and playback. (x1)
- (2) Set the REC MODE switch to LONG and check for normal recording and playback. (x0.5)
- (3) With QUE (▶+▶▶) or REVIEW (▶+◀◀), check that qurrr, qurrr sound is heard. (x3, x8)
- (4) Check that correct time is displayed after FF (▶▶) or REV (◀◀). (x16)
- (5) Check that AMS (▶▶I, I◀◀) is normal.

3-1. ELECTRICAL ADJUSTMENTS

FWD Torque Adjustment

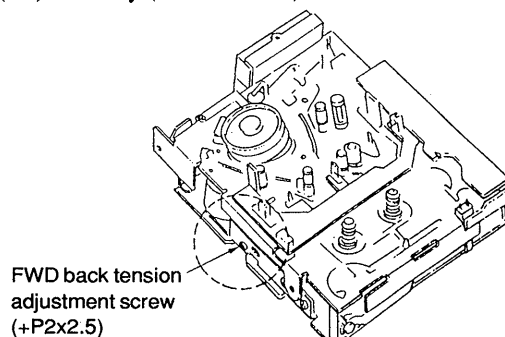
Procedure :

1. Set the test mode (main) and load the FWD torque meter TW-7131 (8-909-708-71).
2. Set the PLAY (▶) mode. "TORQUE" will be displayed on the fluorescent indicator tube.
3. Adjust RV451 so that the minimum value of FWD take up torque (take-up side rewinding torque) is between 9 – 10g • cm (0.13 – 0.14 oz • inch).
Also, make sure that the maximum reading does not exceed 15g • cm (does not exceed 0.21 oz • inch).
4. Confirm that the value indicated by the torque meter is maintained for one full cycle.

FWD Back Tension Check and Adjustment

Check procedure :

1. Put the set into the test mode (main • servo) and load the FWD torque meter TW-7131 (8-909-708-71).
2. Put the set into the PLAY (▶) mode.
3. Turn the FWD back tension adjustment screw locked on the mechanical deck side so that the minimum value of FWD back tension torque (supply side) is between 4.5 to 7.5g • cm – (0.06 – 0.1 oz • inch).
Also, make sure that the maximum reading does not exceed 8g • cm (does not exceed 0.11 oz • inch).
After completion of adjusting, be sure to apply screw lock.
4. Confirm that value indicated by the torque meter is maintained for one full cycle.
5. If the specified values are not satisfied, replace the lever (BT) assembly (X-3363-024-1).



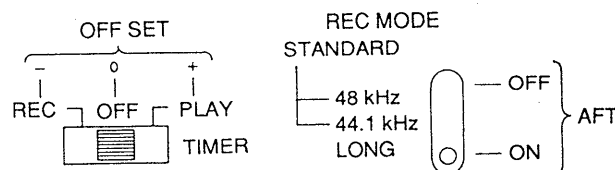
To tighten (clockwise) — back tension becomes larger.
To loosen (counterclockwise) — back tension becomes smaller.

Tape Path Fine Adjustments (x1.5 FWD Mode)

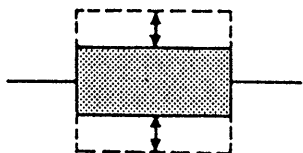
Perform the following adjustment when the drum has been replaced.

Procedure:

1. Connect an oscilloscope CH-1 to JW183 (PBRF) and CH-2 to JW092 (SWP) on the main board.
2. Set the test mode (main) and load test tape TY-7252 (8-909-822-00).
3. Press the AMS (▶▶I) key. "DPG" will be displayed on the fluorescent indicator tube.
Each part of switches on Test Mode.

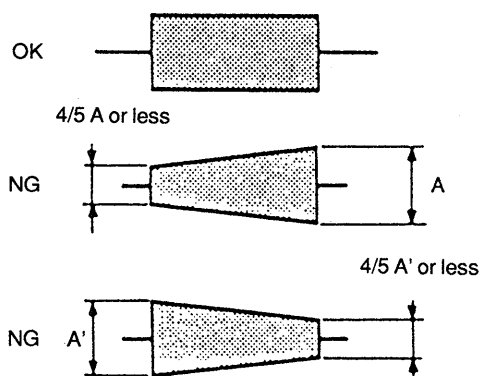


4. With the REC MODE switch set to 48kHz (ATF: OFF) and the TIMER switch set to PLAY or REC (OFFSET: + or -), fine adjust the SI and TI guides so that the oscilloscope RF signal waveform remains the same when high-low is repeated.

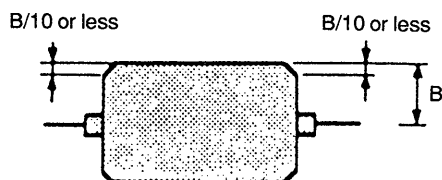


* Finish the adjustment by screwing in.

5. Check the RF signal waveform with the REC MODE switch set to LONG (ATF: ON) and the TIMER switch set to PLAY or REC (OFFSET: + or -).



6. Check the RF signal waveform with the REC MODE switch set to LONG (ATF: ON) and the TIMER switch set to OFF (OFFSET: 0).
 - (1) Confirm that the RF signal waveform peak value (B) is 60 mV or more.
 - (2) Confirm that the undershoot level of the RF signal waveform's flat portion is within 10%.



7. When the measured values are not within the above tolerance repeat items 3 - 6 above.

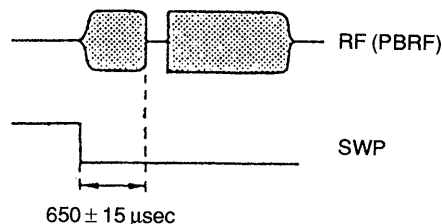
Adjustment Point : Mechanism assembly

DPG Adjustment

Perform the following adjustment without fail when the drum has been replaced.

Procedure:

1. Connect oscilloscope CH-1 to JW183 (PBRF) and CH-2 to JW092 (SWP) on the main board. (Use CH-2 as the trigger. When the CH-2 signal is inverted, the trailing edge can be used for synchronization.)
2. Set the test mode (main) and load test tape TY-7252 (8-909-822-00).
3. Set the REC MODE switch to LONG (ATF: ON) and the TIMER switch to OFF (OFFSET: 0).
4. Press the AMS (▶▶) key. "DPG" will be displayed on the fluorescent indicator tube.
5. Press the ◀◀ and ▶▶ keys as appropriate so that the gap between the oscilloscope SWP and RF signals become $650 \pm 15 \mu\text{sec}$. (Hold the ◀◀ and ▶▶ keys down for more than 1 second to perform rough adjustment. Hold them down for approximately 0.2 seconds for fine adjustment, and the auto adjustment can be performed pressing ▷ key.

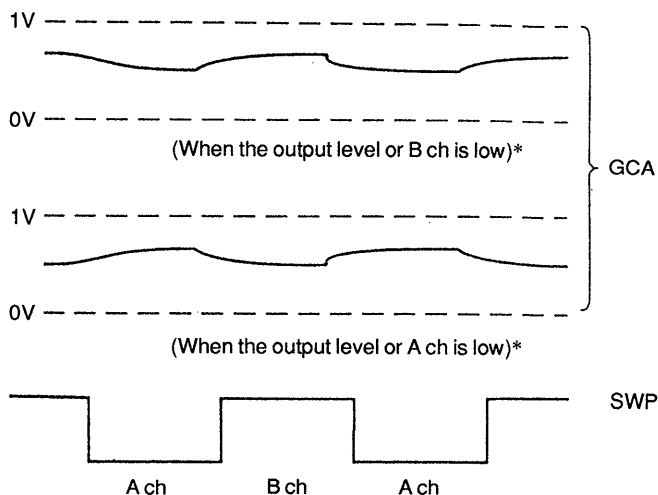


AGC Voltage Check

Perform this adjustment after cleaning the heads with a cleaning cassette.

Procedure:

1. Connect oscilloscope CH-1 to JW247 (GCA: Gain Control Amp.) and CH-2 to JW092 (SWP) on the main board. (When the CH-2 signal is inverted, the trailing edge can be used for synchronization.)
2. Set the test mode (main) and load test tape TY-7111X (8-909-823-00).
3. Set the PLAY (▶) mode and check that the GCA waveform on the oscilloscope is as follows.



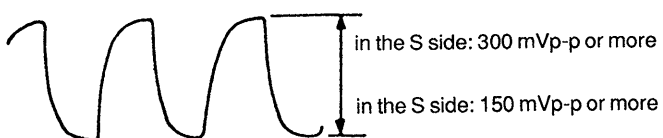
* Slightly changes depending on the state of the head. NG if the GCA waveform is 1V or more or equal to the ground level.

End Sensor Check

Perform the following adjustment when the holder has been removed or part of the mechanism deck section replaced.

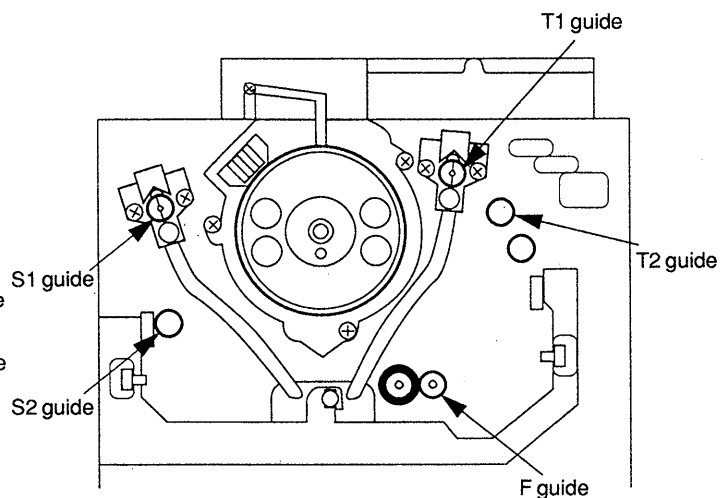
Procedure:

1. Connect an oscilloscope to the JW158 (SEND: in the S side) and JW143 (TEND: in the T side) of the main board.
2. Set the test mode (main), mount an end sensor cassette and effect the STOP (■) mode.
3. Check that p-p values of waveform of the oscilloscope satisfy the following.



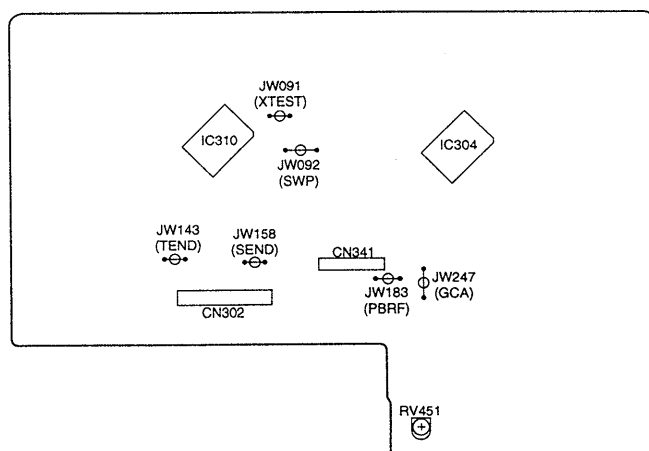
Adjustment Location :

— Mechanism assembly —

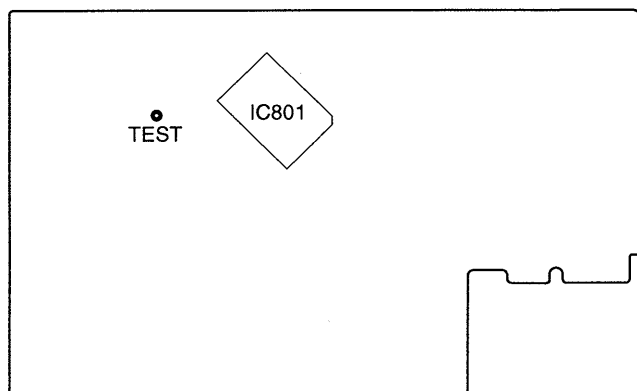


Adjustment Location :

[MAIN BOARD] (Component side)

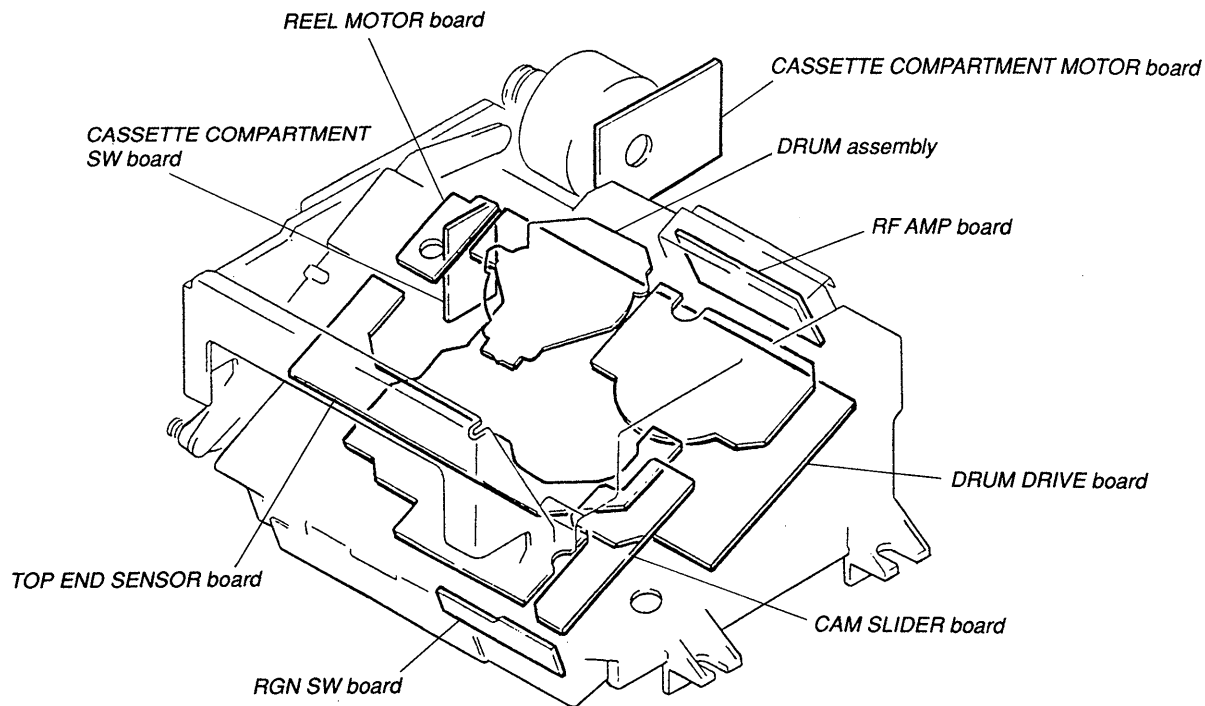
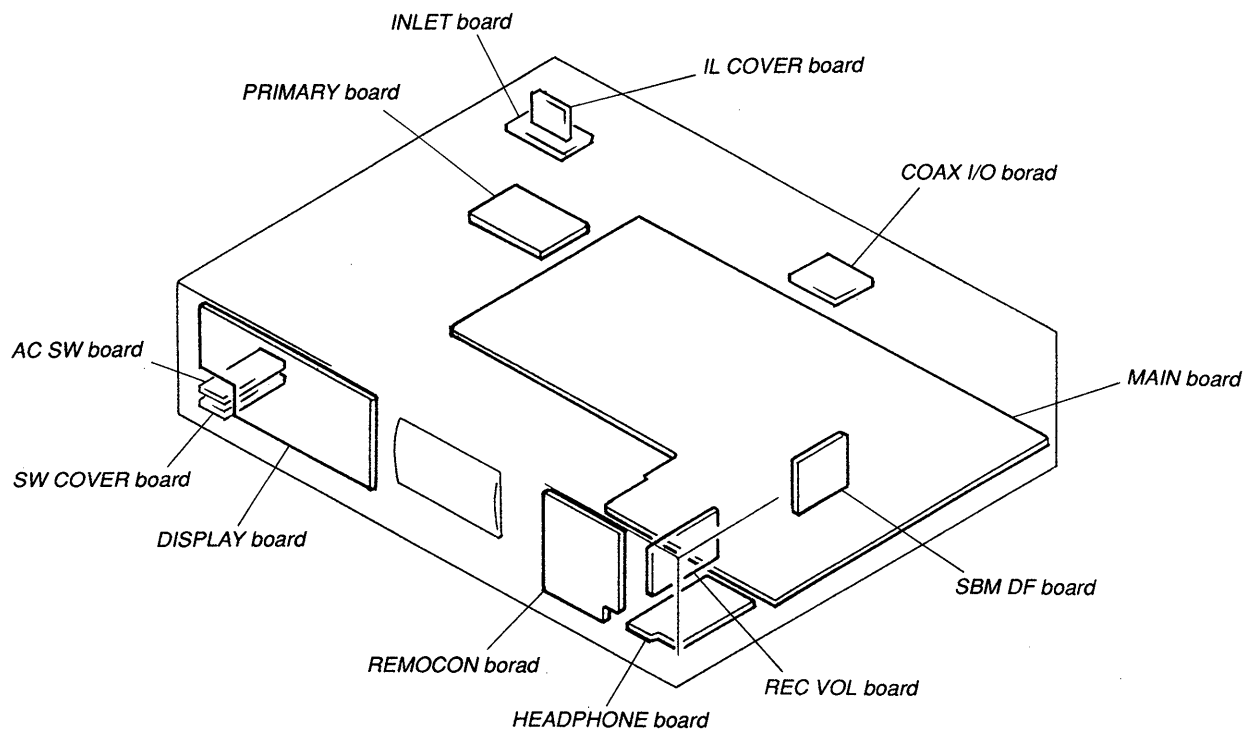


[DISPLAY BOARD] (Conductor side)

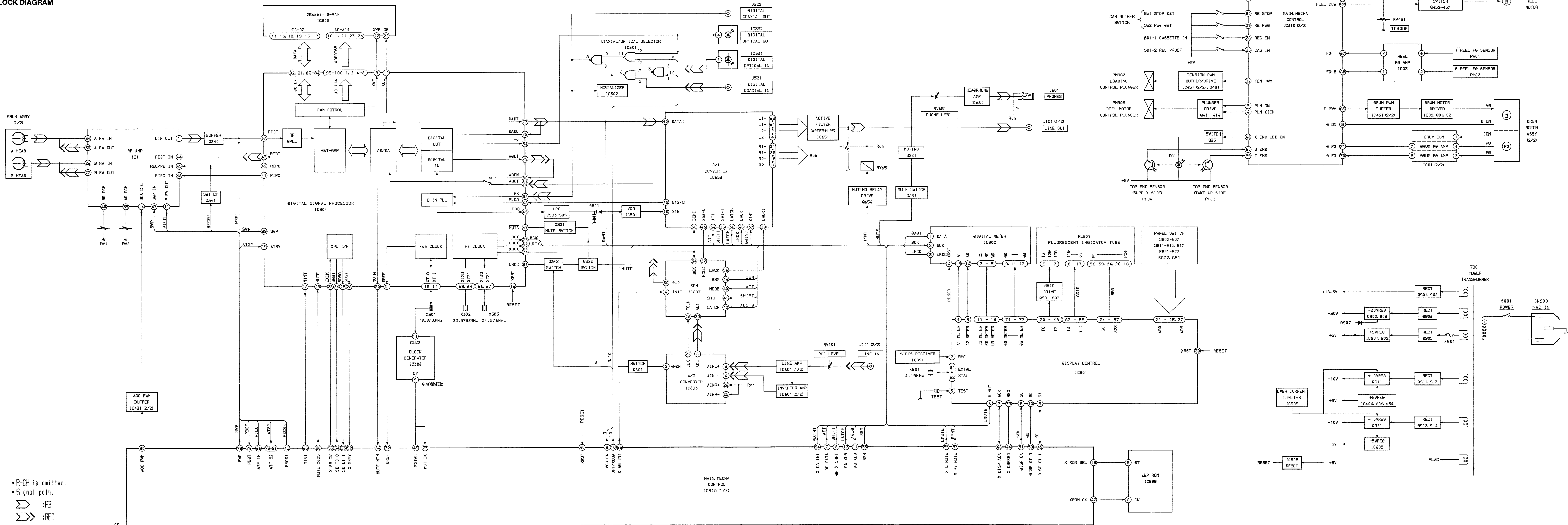




SECTION 4 DIAGRAMS

4-1. CIRCUIT BOARDS LOCATION



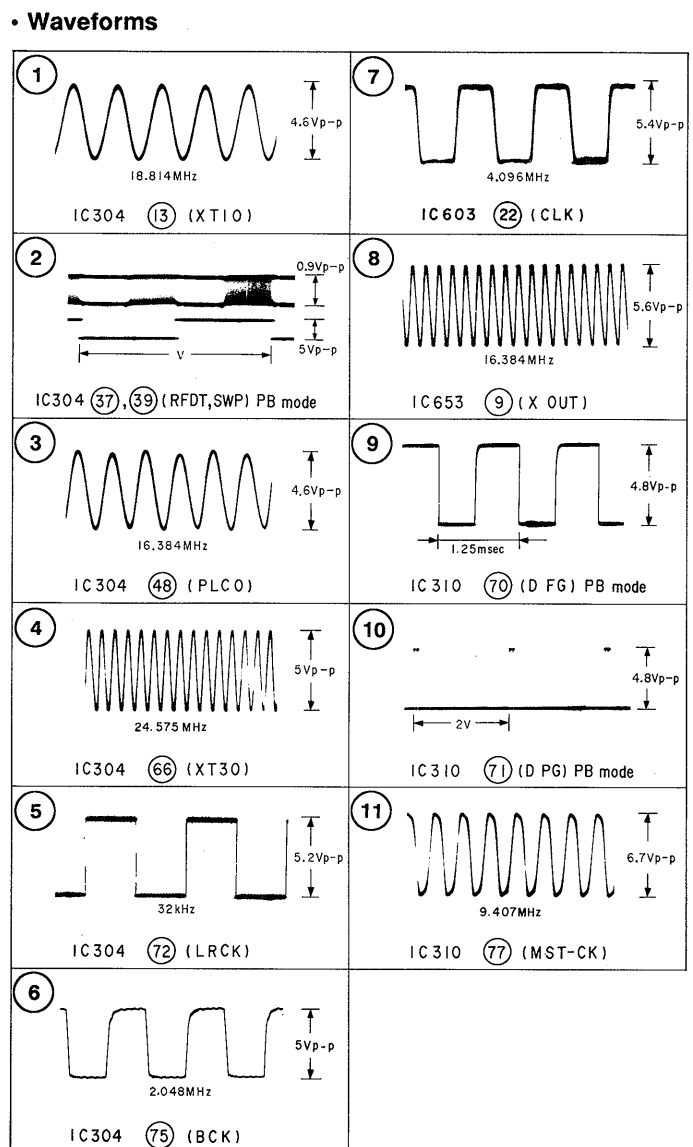
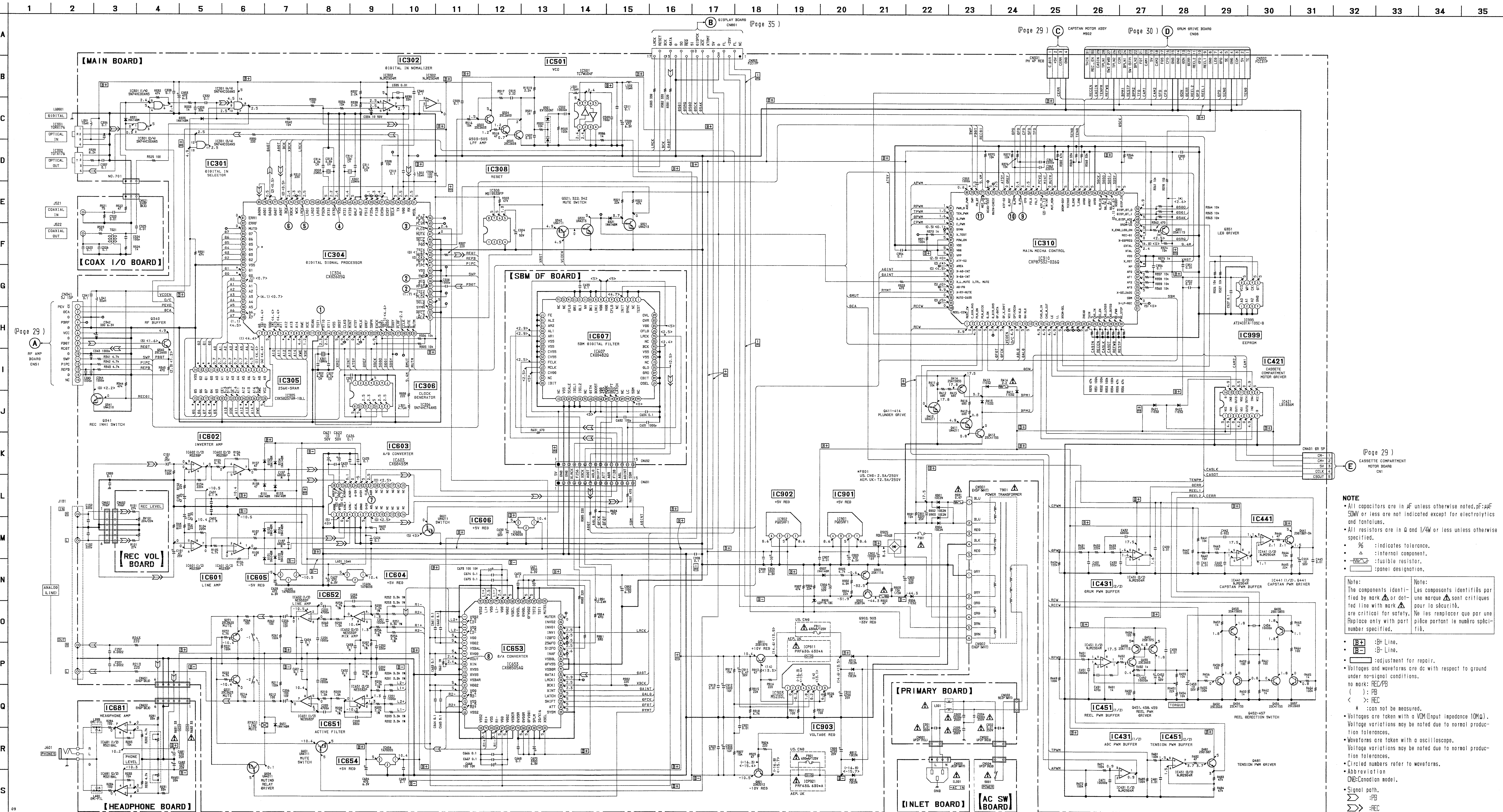
2. BLOCK DIAGRAM



- R-CH is omitted.
 - Signal path.
-  :PB
 :REC

4-3. SCHEMATIC DIAGRAM — MAIN SECTION —

- See page 38 for IC Block Diagrams.
- See page 41 for IC Pin Functions. (IC304, 310)



NOTE

- All capacitors are in μF unless otherwise noted. $\text{pF} = \text{pF}$, $\text{mF} = \text{mF}$, $\text{nF} = \text{nF}$.
- All resistors are in Ω and $1/\text{W}$ or less unless otherwise specified.
- $\%$: indicates tolerance.
- Δ : internal component.
- \square : fusible resistor.
- \square : panel designation.

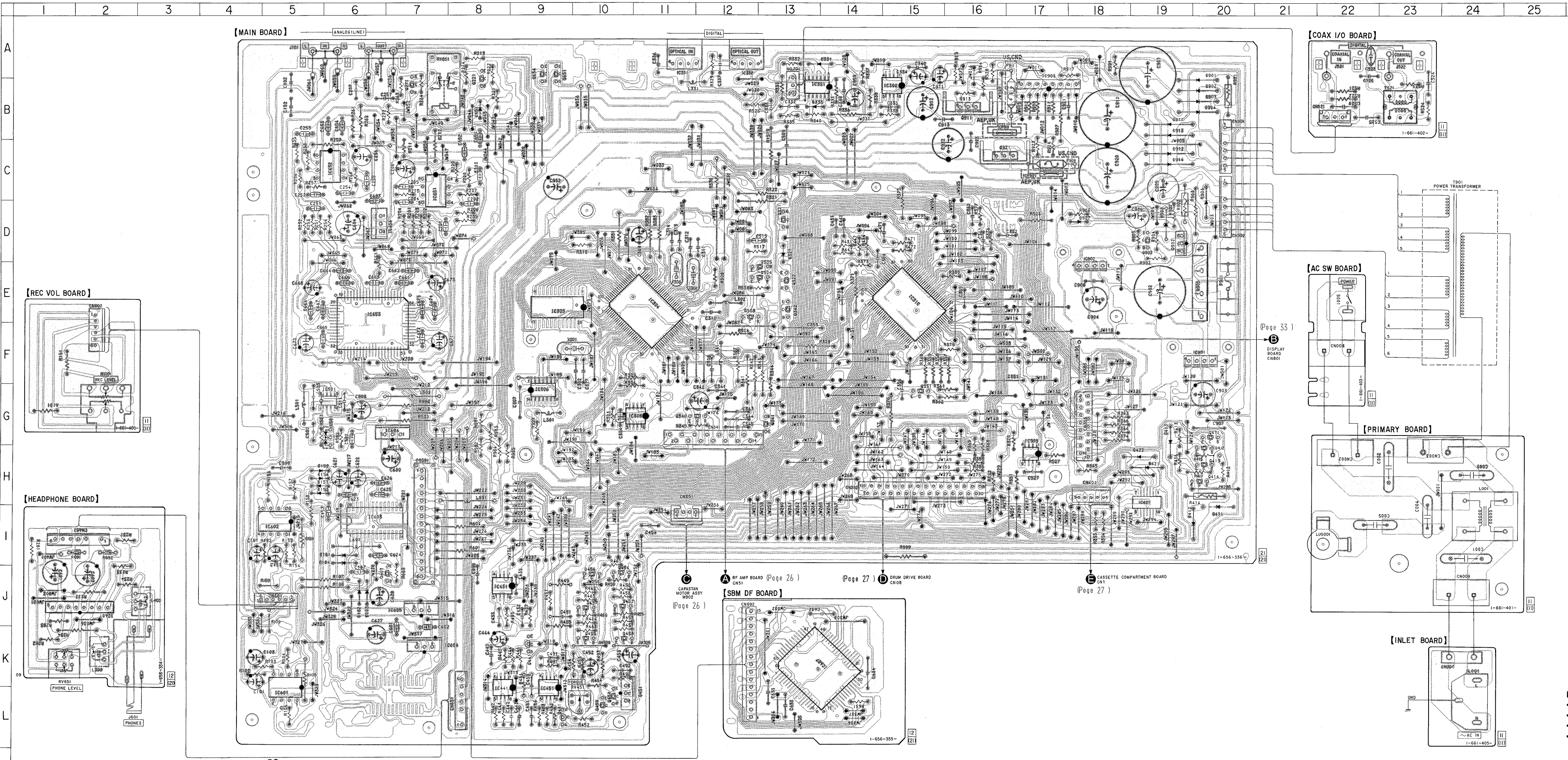
Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Legend:

- \square : B+ Line.
- \square : B- Line.
- \square : adjustment for repair.
- Voltages are taken with a VOM (input impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Abbreviation DNB: Condon model.
- Signal path.
- \square : PB.
- \square : REC.

4-4. PRINTED WIRING BOARD — MAIN SECTION —
• See page 12 for Circuit Boards Location.

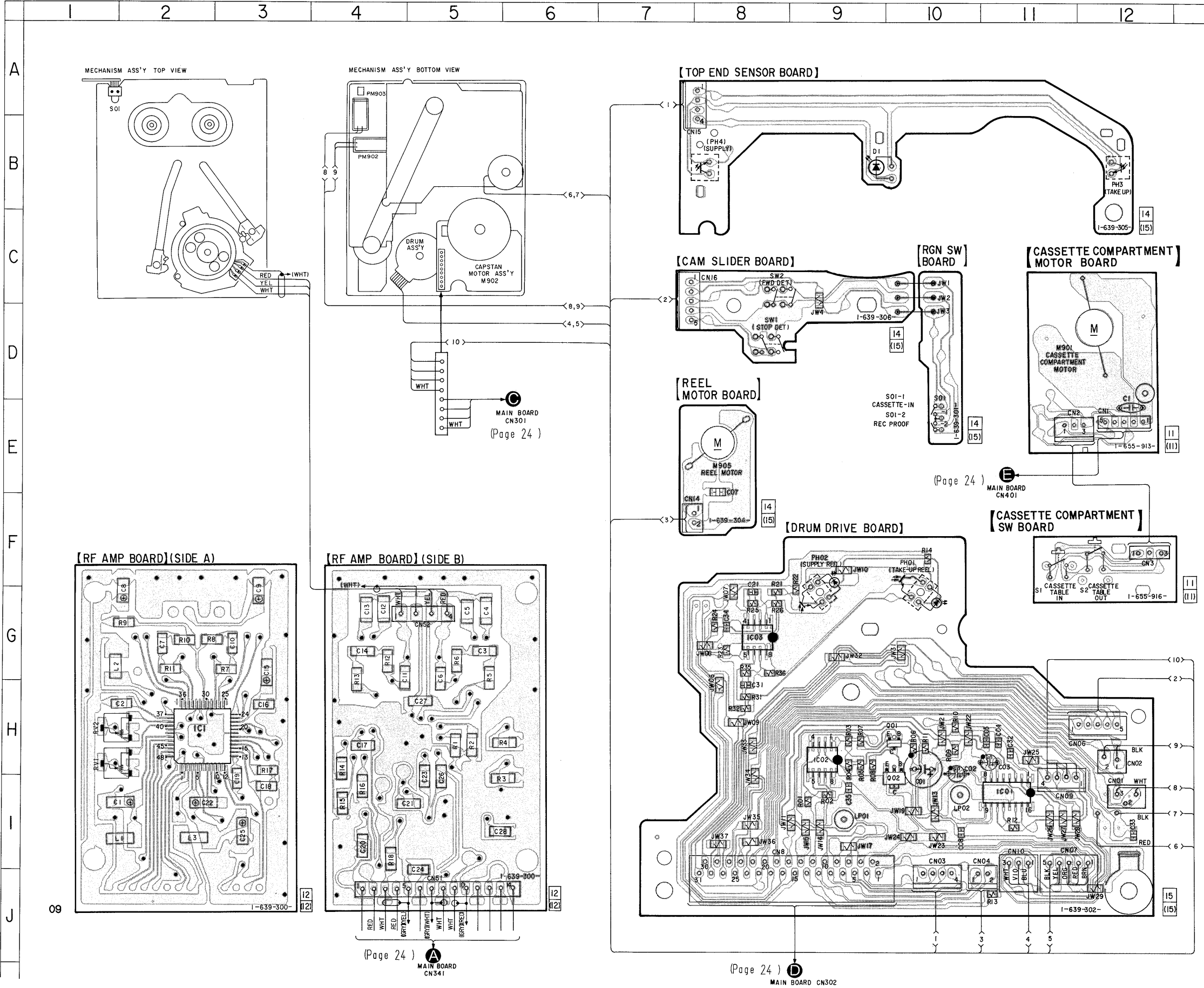


• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D101	I-6	IC604	K-7
D102	J-6	IC605	I-7
D103	J-6	IC606	G-7
D104	I-6	IC607	K-13
D151	H-5	IC651	C-7
D152	H-5	IC652	C-6
D153	H-5	IC653	F-6
D154	H-5	IC654	D-6
D321	D-13	IC681	J-2
D331	A-14	IC901	F-20
D333	B-13	IC902	E-18
D411	I-20	IC903	B-17
D412	I-20	IC999	H-17
D413	G-19		
D421	H-19	Q221	B-8
D422	H-19	Q271	B-7
D501	G-6	Q321	D-13
D651	B-8	Q322	E-13
D901	B-20	Q340	G-12
D902	B-20	Q341	G-13
D903	B-20	Q342	E-13
D904	B-20	Q351	G-15
D905	E-20	Q411	G-20
D906	D-20	Q412	H-20
D907	D-18	Q413	H-20
D908	D-19	Q414	H-20
D911	B-19	Q441	K-9
D912	C-19	Q451	L-10
D913	B-19	Q452	J-10
D914	C-19	Q453	K-10
		Q454	J-10
		Q455	K-10
		Q456	J-10
		Q457	J-10
		Q458	L-10
		Q459	L-10
		Q481	L-9
		Q503	E-12
		Q504	E-13
		Q505	E-13
		Q601	J-7
		Q651	A-9
		Q654	A-9
		Q902	D-19
		Q903	D-19
		Q911	B-16
		Q921	C-17

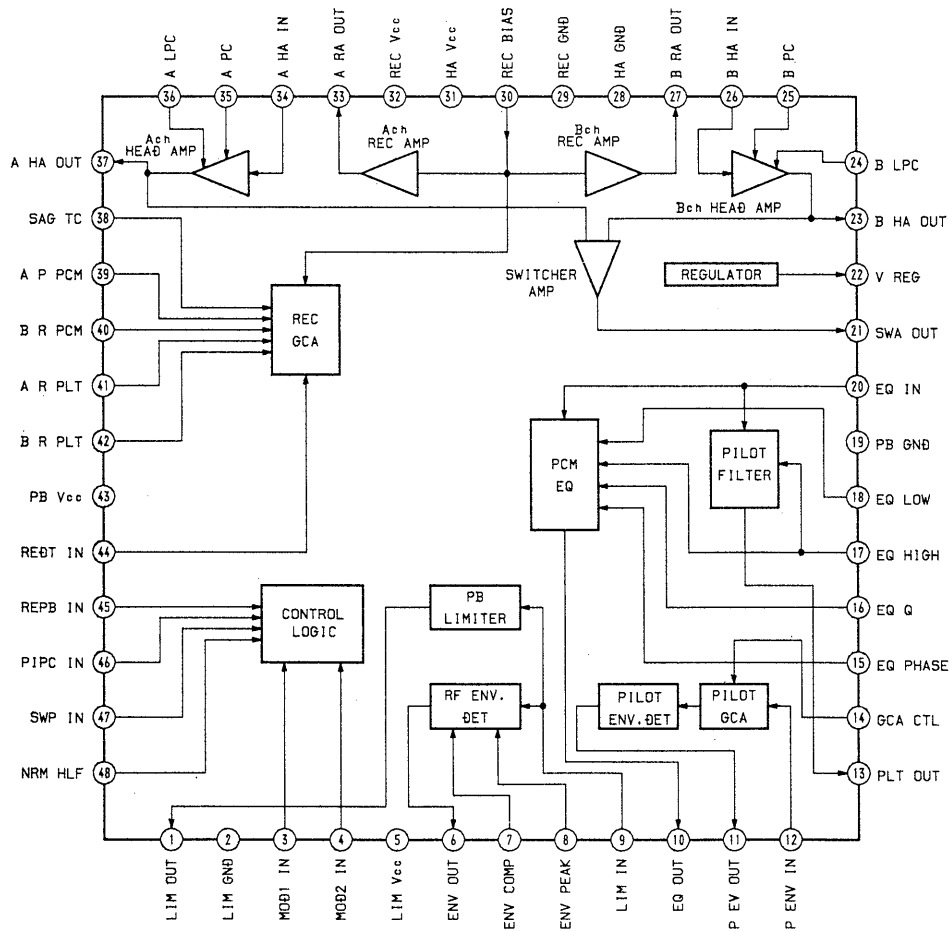
Note:
• — : parts extracted from the component side.
• △ : internal component.
• □ : Pattern from the side which enable seeing.
• Abbreviation
CND : Canadian model.

4-5. PRINTED WIRING BOARD — MD SECTION —
• See page 12 for Circuit Boards Location.

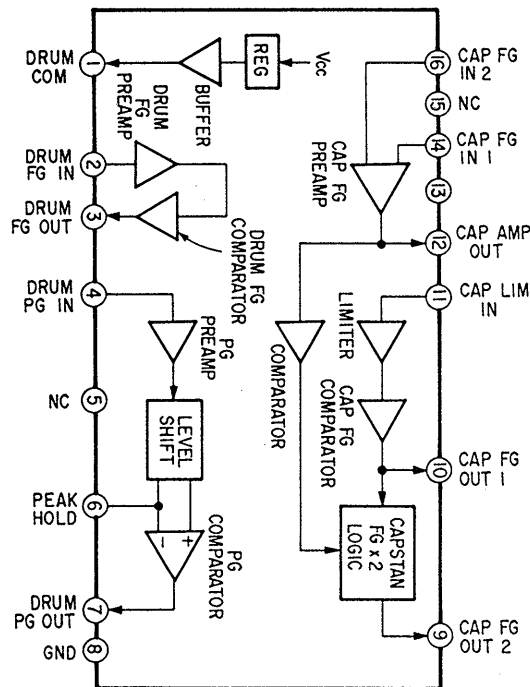


• IC Block Diagrams

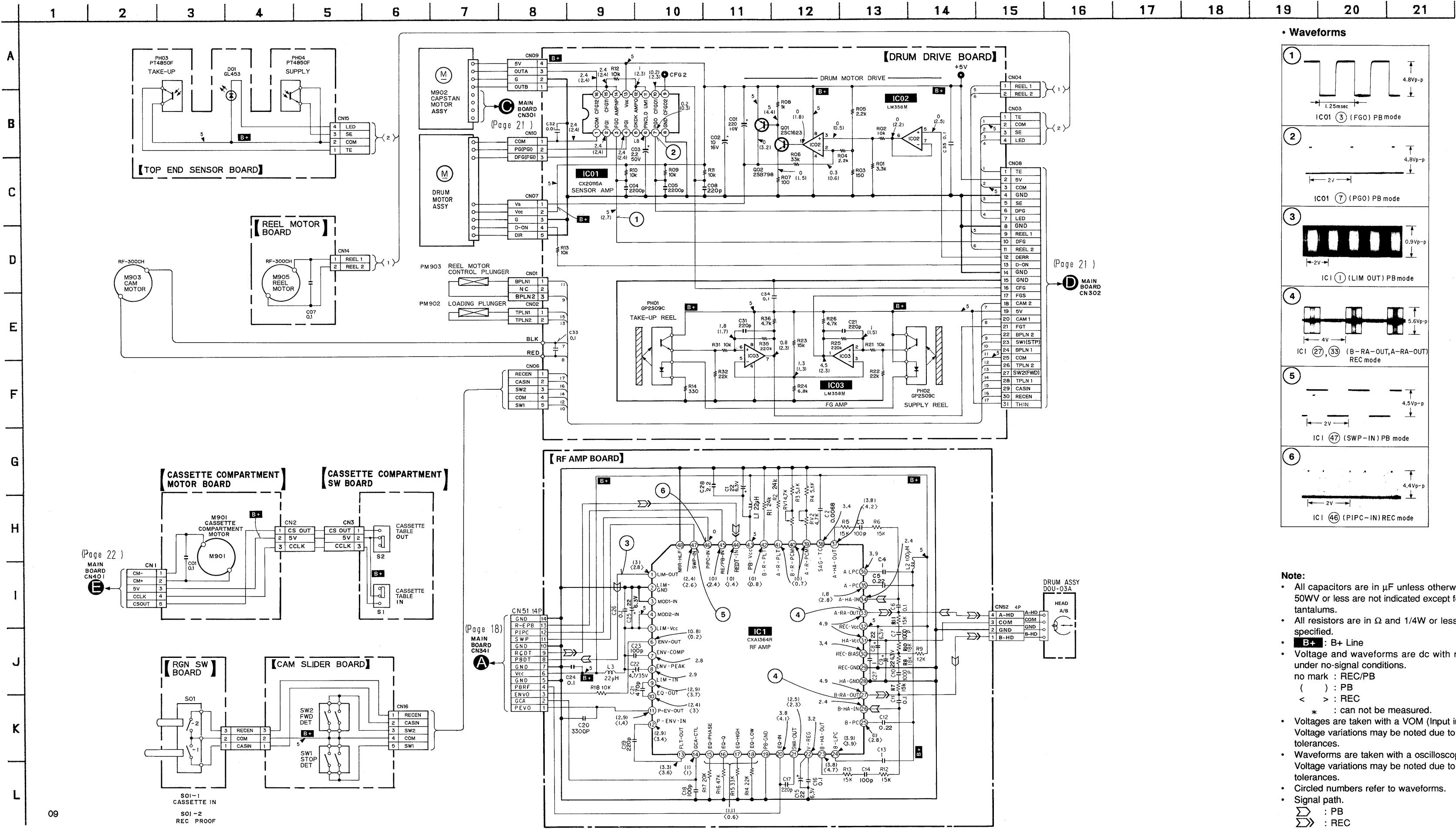
IC1 CXA1364R



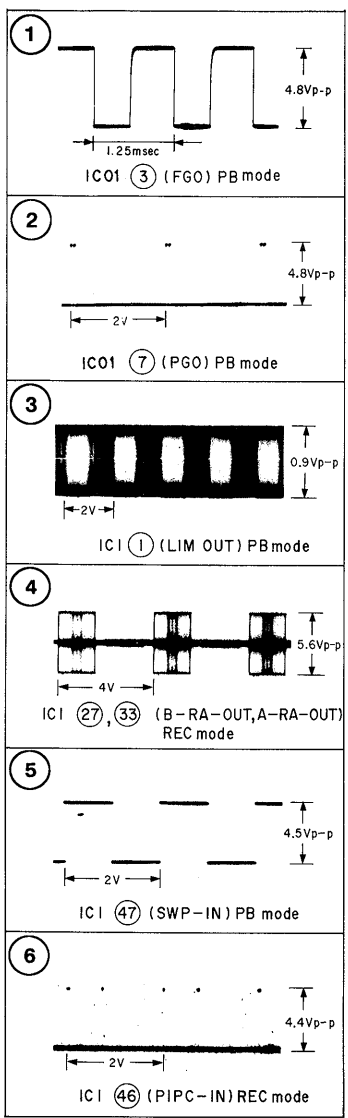
IC01 CX20115A



4-6. SCHEMATIC DIAGRAM — MD SECTION —



• Waveforms

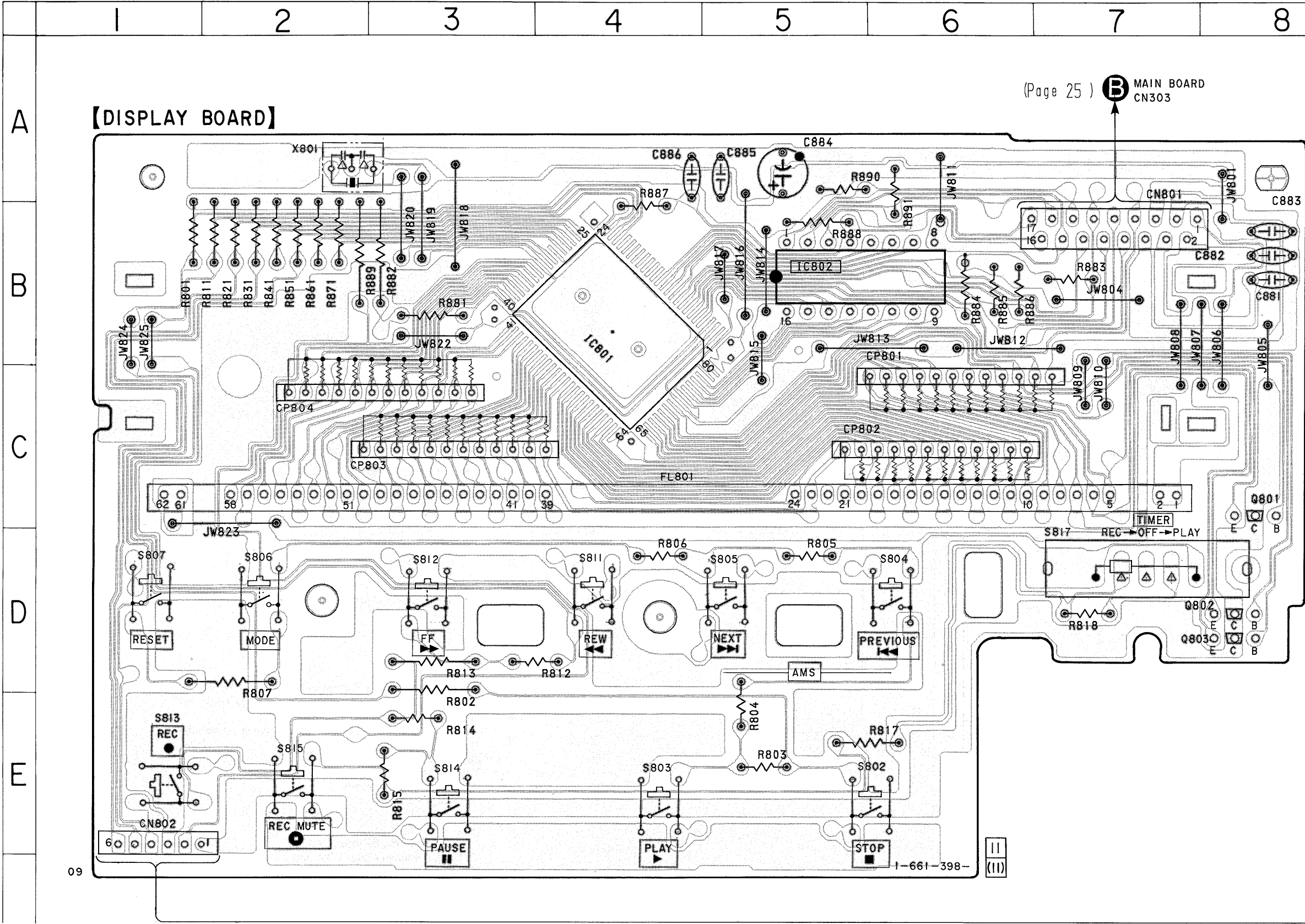


- Note:**
- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and 1/4W or less unless otherwise specified.
 - B+**: B+ Line
 - Voltage and waveforms are dc with respect to ground under no-signal conditions.
no mark : REC/PB
() : PB
< > : REC
* : can not be measured.
 - Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
 - Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
 - Circled numbers refer to waveforms.
 - Signal path:
> : PB
>> : REC

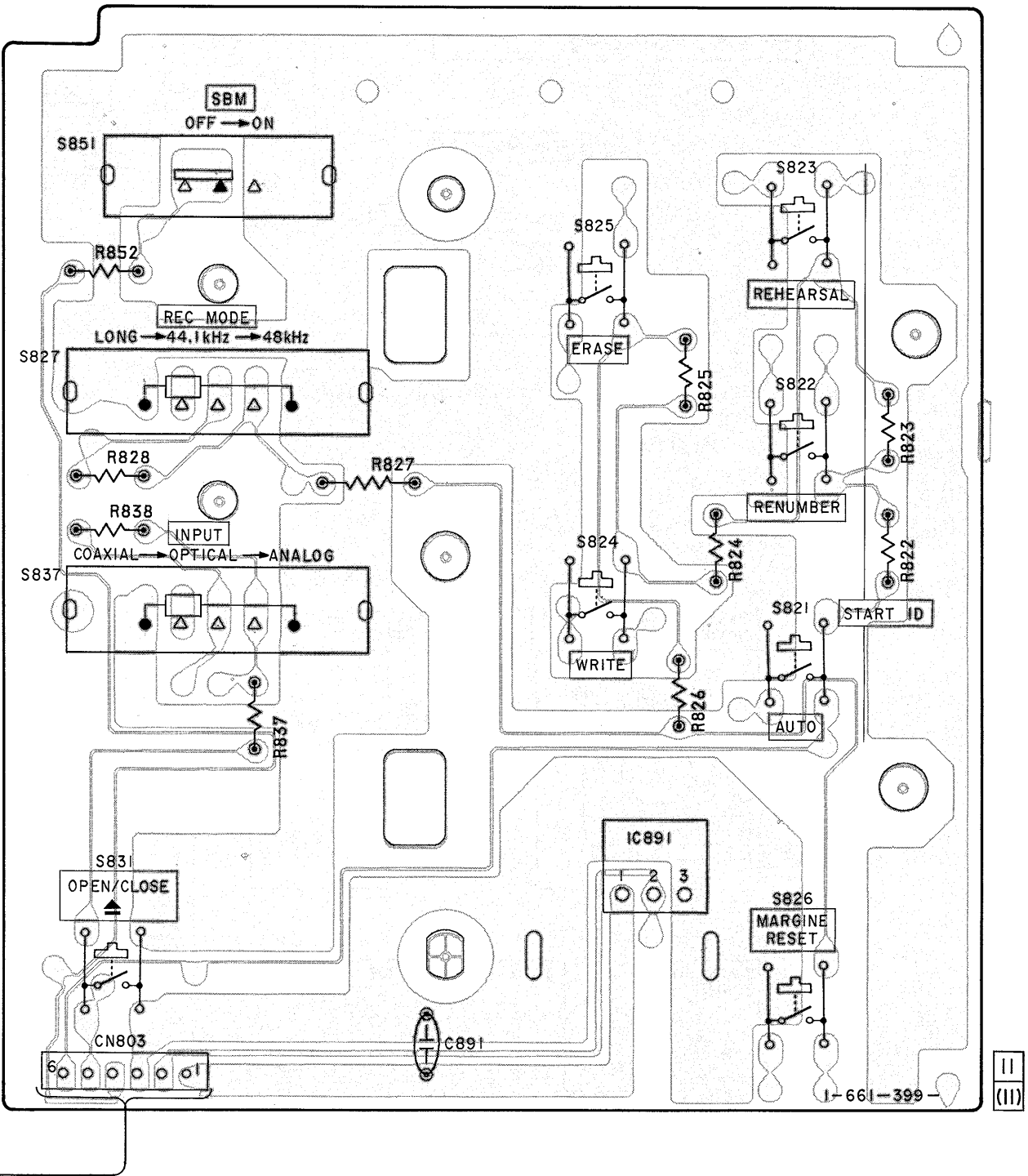
4-7. PRINTED WIRING BOARD — PANEL SECTION —
• See page 12 for Circuit Boards Location.

• Semiconductor Location

Ref. No.	Location
IC801	B-4
IC802	B-5
IC891	E-11
Q801	C-8
Q802	D-8
Q803	D-8

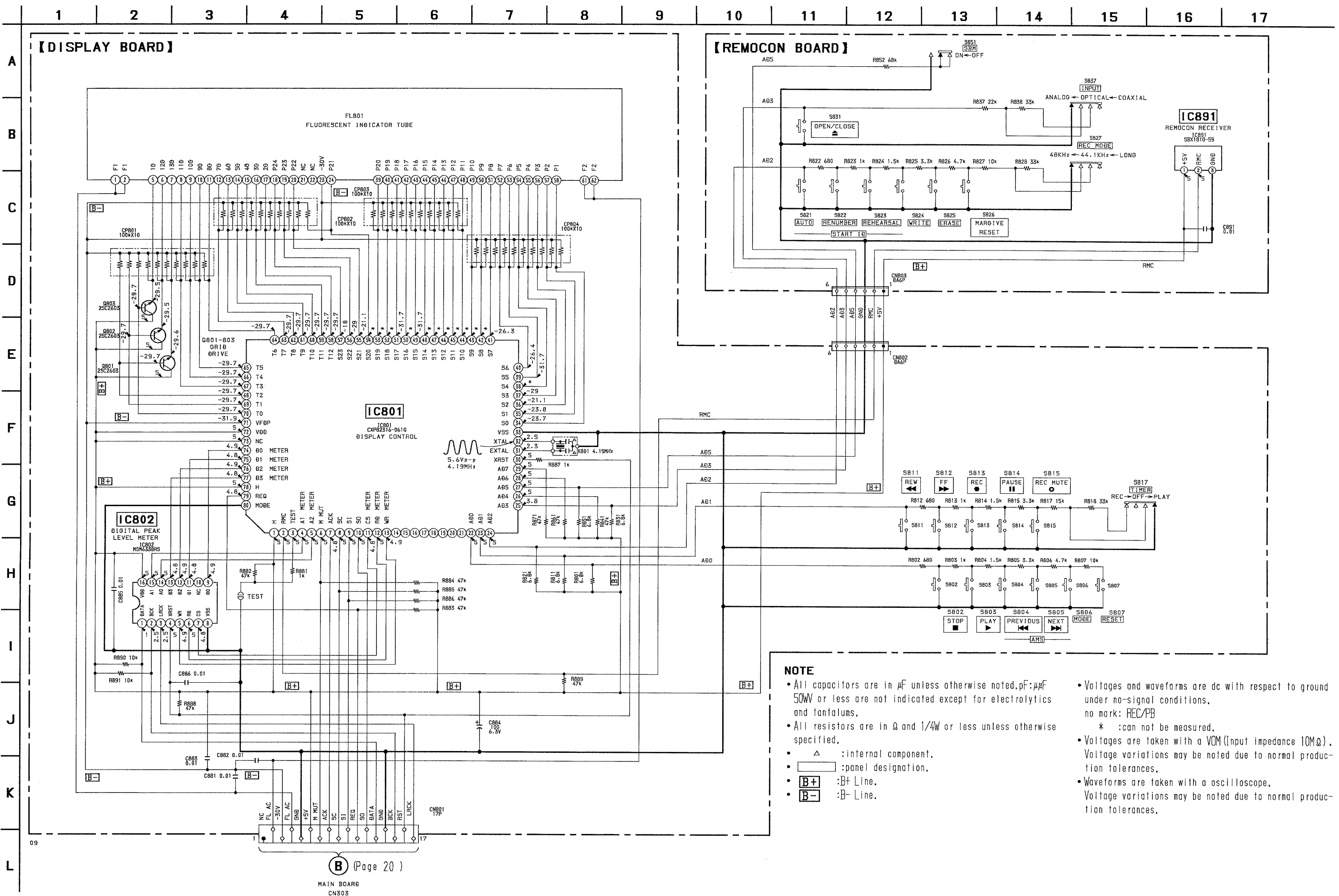


【REMOCON BOARD】

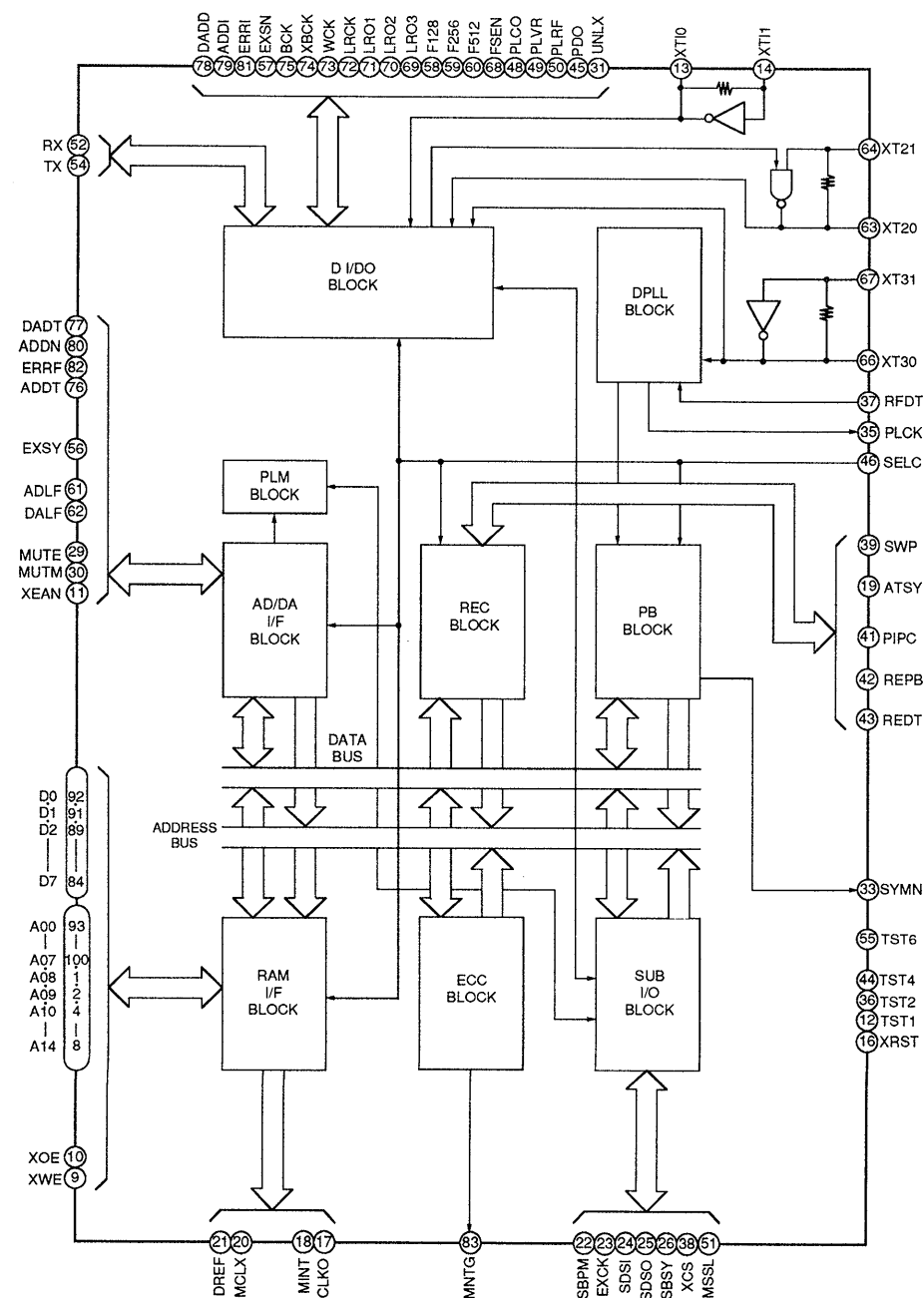


Note:
• — : parts extracted from the component side.
• Δ : Internal component.
• □ : Pattern from the side which enable seeing.

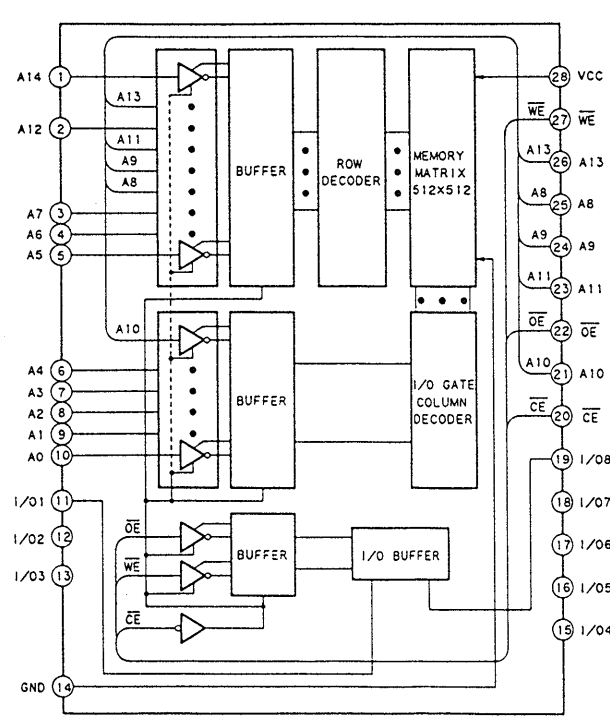
4-8. SCHEMATIC DIAGRAM — PANEL SECTION — • See page 46 for IC Pin Functions. (IC801, 802)



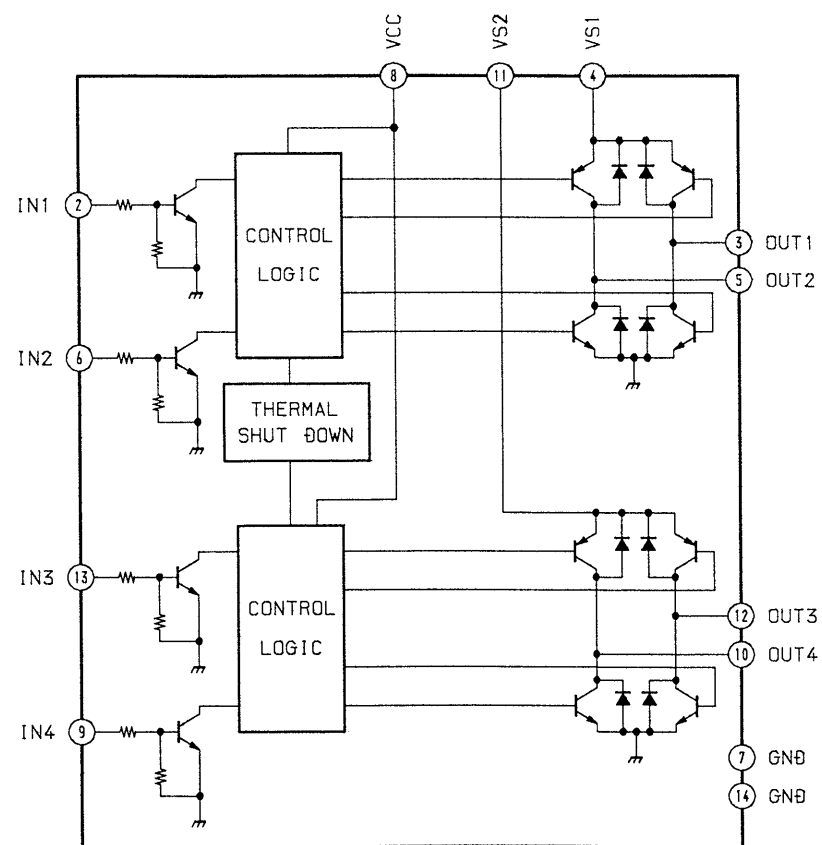
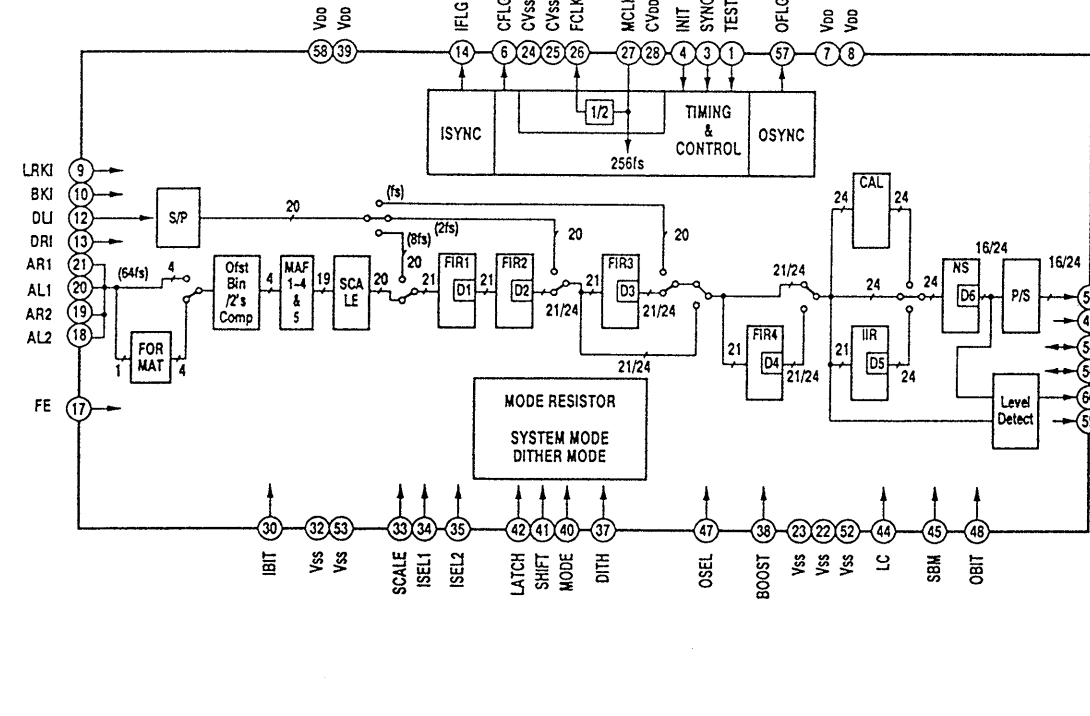
4-9. IC BLOCK DIAGRAMS — MAIN SECTION —

IC304 CXD2605Q

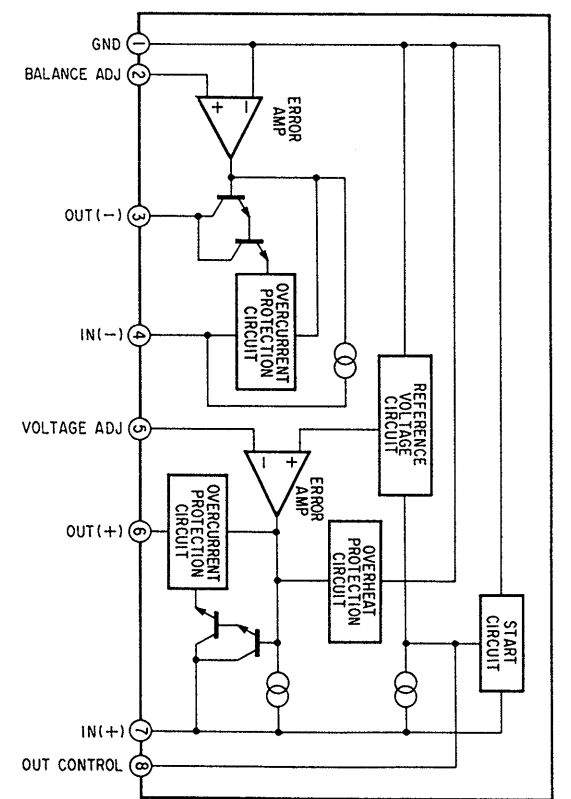
IC305 CXK58257AM-10LL



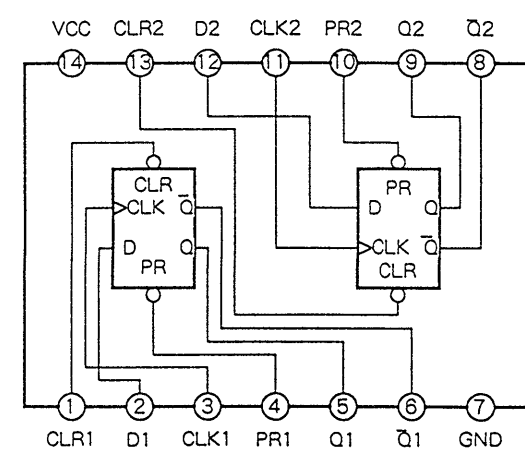
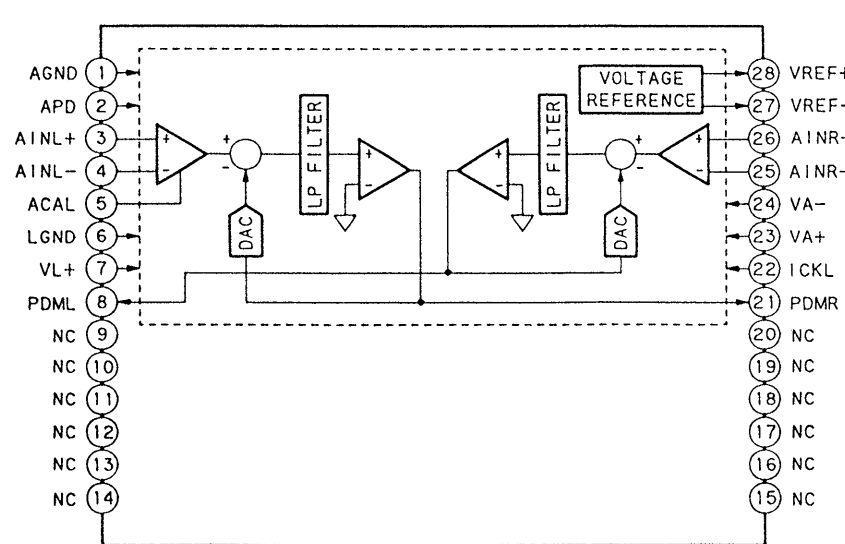
IC421 LB1836M

**IC607 CXD8482Q**

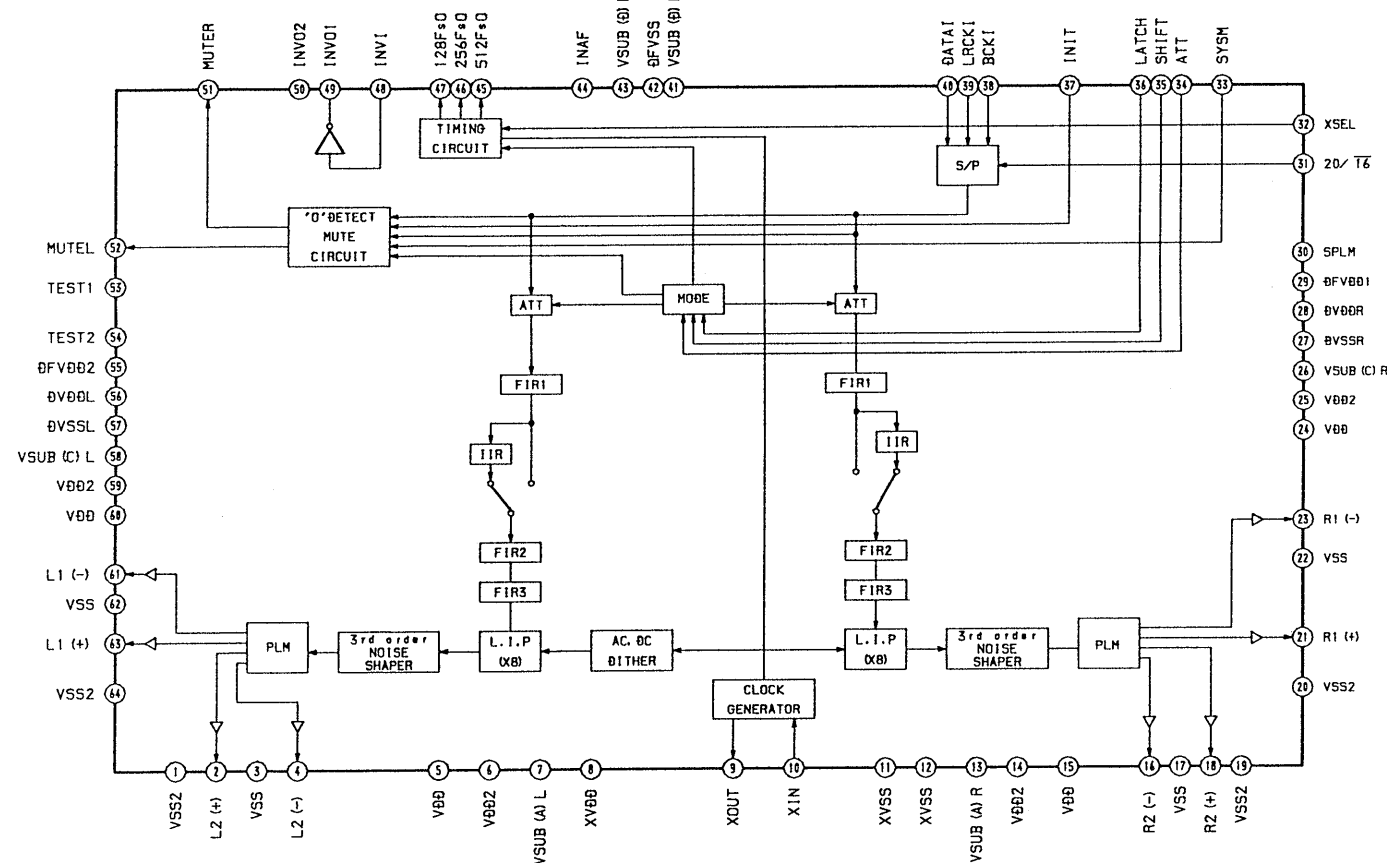
IC903 M5230L



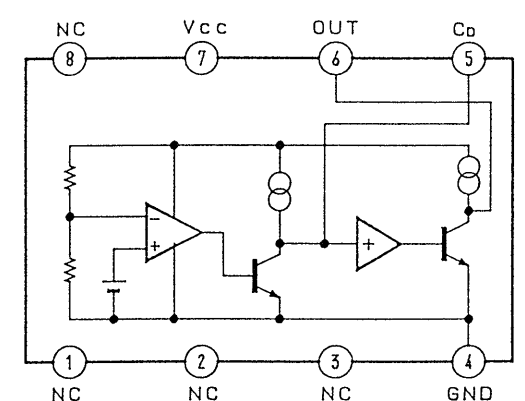
IC306 SN74HC74ANS

**IC603 CXD8493M**

IC653 CXD8505AQ



IC308 M51953BFP



4-10. IC PIN FUNCTIONS

• IC304 CXD2605Q (DSP)

Pin No.	Pin Name	I/O	Function
1, 2	A8, A9	O	External RAM address output
3	VDD	—	Power supply (+5V)
4 to 8	A10 to A14	O	External RAM address output
9	XWE	O	External RAM write enable signal output
10	XOE	O	External RAM output enable signal output
11	XEAN	O	Not used (Open).
12	TST1	I	Test pin. Fixed to "L".
13	XTIO	O	Crystal oscillation circuit 1 output
14	XTII	I	Crystal oscillation circuit 1 input
15	VSS	—	Ground
16	XRST	I	Reset input. "L": Reset.
17	CLKO	O	Not used.
18	$\overline{\text{MINT}}$	O	Control byte (1) bit 1="L": Q code decode (Detecting between songs) output, "H": BCK clock output by RX-PLL.
19	ATSY	I	ATF sync signal input
20	MCLK	O	Not used.
21	DREF	O	SBSY period, duty 50 signal output
22	SBPM	O	Not used (Open).
23	EXCK	I	Data transfer clock input for MAIN, MECHA CONTROL (IC310)
24	SDSI	I	Serial data input from MAIN, MECHA CONTROL (IC310)
25	SDSO	O	Serial data output to MAIN, MECHA CONTROL (IC310)
26	SBSY	O	Frame sync signal output for transferring data with MAIN, MECHA CONTROL (IC310)
27	$\overline{\text{PLRF}}$	O	Not used (Open).
28	$\overline{\text{CCLK}}$	O	Not used.
29	MUTE	I	Mute input. "H": Mute. Not mute REC monitor sound.
30	MUTM	O	Mute monitor. "H": Indicates muting occurs.
31	UNLK	O	RXPLL lock monitor signal output. "L": Indicates locking occurs.
32	$\overline{\text{RFCT}}$	I	Playback RF signal control ("L": Valid, "H": Invalid) (Connected to Ground)
33	SYMN	O	Outputs monitor signal for C1 check results corresponding to RF.
34	$\overline{\text{SELB}}$	I	Test pin. Fixed to "H".
35	PLCK	O	Not used.
36	TST2	I	Test pin. Fixed to "L".
37	RFDT	I	Playback RF signal input
38	XCS	I	Chip select input for data transfer with microprocessor. "L": Transfer enable. (Connected to Ground)
39	SWP	I	RF switching pulse. "L": A track, "H": B track.
40	VSS	—	Ground
41	PIPC	O	ATF pilot signal/discrimination signal output for record signal. "H": Pilot signal.
42	REPB	O	REC/PB discrimination signal output. "H": REC.
43	REDT	O	Record signal output
44	TST4	I	Test pin. Fixed to "L".
45	PDO	O	RXPLL phase comparator output

Pin No.	Pin Name	I/O	Function
46	$\overline{\text{SELC}}$	I	Oscillation frequency select signal input (Connected to Ground)
47	$\overline{\text{MUTA}}$	I	Mute input. "H": Mute. Also mutes REC monitor sound.
48	PLCO	I	RXPLL external VCO clock input (512 fs as reference)
49	PLVR	O	Not used (Open).
50	PLRF	O	Not used.
51	MSSL	I	Master mode/slave mode select. "H": Master.
52	RX	I	Digital interface signal input
53	VDD	—	Power supply (+5V)
54	TX	O	Digital interface signal output
55	$\overline{\text{SELA}}$	I	Test pin. Fixed to "H".
56	EXSY	I/O	} External sync signal input/output
57	EXSN	I/O	
58	F128	I/O	} Not used.
59	F256	O	
60	F512	O	
61	ADLF	I	ADTT, ADDI, ADDN serial data LSB/MSB first select input. "H": LSB first. (Connected to Ground)
62	DALF	I	DADT, DADO serial data LSB/MSB first select input. "H": LSB first. (Connected to Ground)
63	XT2O	O	Crystal oscillation circuit 2 output
64	XT2I	I	Crystal oscillation circuit 2 input
65	VSS	—	Ground
66	XT3O	O	Crystal oscillation circuit 3 output
67	XT3I	I	Crystal oscillation circuit 3 input
68	FSEN	I	F128, BCK, LRCK input/output select input. "H": Output. Fixed to "H".
69	LR03	O	Inverted signal of LRCK 16 BCK delay output.
70	LR02	O	} Not used (Open).
71	LR01	O	
72	LRCK	I/O	fs/2 fs (At 2 × speed) signal input/output
73	WCK	O	Not used.
74	XBCK	O	Outputs inverted signal of BCK
75	BCK	I/O	64 fs/128 fs (At 2 × speed) signal input/output
76	ADDT	I	A/D serial data input
77	DADT	O	D/A serial data output
78	DADO	I	Audio data input for digital OUT
79	ADDI	O	Digital IN audio data output
80	ADDN	I	Digital IN audio data input
81	ERRI	I	Validity flag data input for digital OUT
82	ERRF	O	DADT data compensation data/discrimination signal output. "H": Compensation data.
83	MUTG	O	Not used.
84	D7	I/O	External RAM data input/output (MSB)
85 to 89	D6 to D2	I/O	External RAM data input/output
90	Vss	—	Ground
91	D1	I/O	External RAM data input/output
92	D0	I/O	External RAM data input/output (LSB)
93 to 100	A0 to A7	O	External RAM address output

• IC310 CXP87532-026Q (MAIN, MECHA CONTROL)

Pin No.	Pin Name	I/O	Function
1	REEL CW	O	Reel motor CW output. "H": FWD direction.
2	C DIR RVS	O	Capstan direction control output. "L": FWD, "H": RVS
3	PLN ON	O	Brake plunger ON control output.
4	PLN KICK	O	Brake plunger kick control output.
5	D ON	O	Drum motor ON control output.
6	D DIR RVS	O	Not used.
7	DF DATA	O	Communication line (Serial data) with Digital filter.
8	DF X SHFT	O	Communication line (Shift clock) with Digital filter. "L": shifted, "H": taken
9	VCO EN	O	Digital signal control output. "L": Digital input REC
10	OPT/XCOA	O	Digital input switch output. "L": coaxial, "H": optical
11	AD XLD	O	Load to Digital filter for A/D converter.
12	DA XLD	O	Load to Digital filter for D/A converter.
13	—	—	} Not used (Open).
14	—	—	
15	CAS M IN	O	Cassette compartment motor rotation direction control output. IN direction.
16	CAS M OUT	O	Cassette compartment motor rotation direction control output. OUT direction.
17	LE	O	Loading motor rotation direction control output. Eject direction.
18	LL	O	Loading motor rotation direction control output. Loading direction.
19	X ROM SEL	O	ROM select output. "L": EEPROM
20	—	—	} Not used.
21	—	—	
22	—	—	
23	2 HEAD	I	Head select. Fixed to "H"
24	THIN	I	Detect kinds of tapes. "H": normal tape, "L": Thin tape. Fixed to "H"
25	CAS IN	I	Cassette IN switch input.
26	REC EN	I	REC enable switch input.
27	CAS LCKED	I	Cassette compartment lock switch input.
28	CAS OUTED	I	Cassette compartment out switch input.
29	RE FWD	I	Encoder SW2 input.
30	RE STOP	I	Encoder SW1 input.
31	—	—	Not used (Open).
32	X LP REC	O	Not used.
33	SBM	O	Super bit mapping control output.
34	X SEL2605	O	Not used (Open).
35 to 38	AF 3 to AF 0	I	AF mode select. Fixed to "H".
39	MP	—	Not used (Connected to Ground).
40	X RST	I	System reset input. "L": Active

Pin No.	Pin Name	I/O	Function
41	VSS	—	Ground
42	XTAL	O	System clock output (Open).
43	EXTAL	I	System clock input (9.408MHz).
44	X DISP REQ	O	Communication request output to DISPLAY CONTROL (IC801). "L": Active
45	REC DI	O	Record current control output. "H": Record disable "H": Record enable
46	X END LED ON	O	End sensor ON control output. "L": Active
47	XROM CK	O	Clock output to EEPROM (IC999).
48	X DISP ACK	I	Communication acknowledge input from DISPLAY CONTROL (IC801). "L": Active
49	DISP DT I	I	Serial data input from DISPLAY CONTROL (IC801) and EEPROM.
50	DISP DT O	O	Serial data output to DISPLAY CONTROL (IC801) and EEPROM.
51	DISP CK	O	Serial clock output to DISPLAY CONTROL (IC801) and EEPROM.
52	X SBSY	I	SUB SYNC input from CXD2605Q (master).
53	SR DT I	I	Serial data input from CXD2605Q.
54	SR DT O	O	Serial data output to CXD2605Q.
55	X SR CK	O	Serial clock output to CXD2605Q (for sub code interface).
56	AVSS	—	Ground for A/D port.
57	AVREF	—	Reference voltage for A/D port (+5V).
58	AVDD	—	Power supply for A/D port (+5V).
59	T END	I	T side end sensor input.
60	S END	I	S side end sensor input.
61	TCC993	I	Fixed to "L".
62	X ROM BSY	I	Communication direction signal input from EEPROM. "L": Busy
63	—	I	Not used (Connected to Ground).
64	MUT MON	I	Mute monitor input. "H": Active
65	M INT	I	Q code decode value input. "H": Between songs
66	ATF IN	I	ATF pilot signal input (Analog input).
67	FG T	I	T side reel FG signal input.
68	FG S	I	S side reel FG signal input.
69	C FG	I	Capstan FG signal input.
70	D FG	I	Drum FG signal input.
71	D PG	I	Drum PG signal input.
72	D REF	I	Drum reference signal input.
73	ATF S2	I	DPG auto adjustment FRC signal input.
74	—	I	Not used (Connected to Ground)
75	MAIN CHECK	O	Main routine passed check output.
76	X CAS TEST	I	Test pin. "L": Test mode with no cassette compartment.
77	MST CK	I	Master clock input (9.408MHz).
78	PB DT	I	ATF SYNC PB data input.
79	SW P	O	Switching pulse output.
80	AGC PWM	O	PWM signal output for AGC.

Pin No.	Pin Name	I/O	Function
81	PWM R	O	PWM signal output for reel motor.
82	TEN PWM	O	PWM signal output for tension regulator plunger.
83	D PWM	O	PWM signal output for drum motor drive.
84	C PWM	O	PWM signal output for capstan motor.
85	SY MN	I	Not used.
86	X TEST	I	Test pin. "L": Test mode
87	POW DN	I	Not used (Connected to +5V).
88	VSS	—	Ground
89	VDD	—	Power supply (+5V).
90	VPP	—	Connected to +5V.
91	ATF S2	O	ATF sampling pulse #2 output.
92	AREA	O	Not used.
93	X A/D INIT	O	A/D converter reset output.
94	X D/A INIT	O	D/A digital filter reset output. "L": Reset
95	X L MUTE	O	Line mute output. "L": Active
96	AD PD	—	Not used.
97	X RY MUTE	O	Relay mute signal output. "L": Active
98	MUTE 2605	O	Mute signal to CXD2605Q. "H": Active
99	—	—	Not used.
100	REEL CCW	O	Reel motor CCW output. "L": RVS direction

• **IC801 CXP82316-061Q (DISPLAY CONTROL)**

Pin No.	Pin Name	I/O	Function
1	H	I	Not used (Connected to +5V).
2	RMC	I	Remote control signal input.
3	TEST	I	Test pin. "L": Test mode
4	A1 METER	O	DIGITAL METER (IC802) 4-bit address bus.
5	A2 METER	O	
6	M MUT	I	Level meter mute signal input.
7	ACK	O	Acknowledge signal output to MAIN, MECHA CONTROL (IC310).
8	SC	I	Serial clock input from MAIN, MECHA CONTROL (IC310).
9	SI	I	Serial data input from MAIN, MECHA CONTROL (IC310).
10	SO	O	Serial data output to MAIN, MECHA CONTROL (IC310).
11	CS METER	O	CS signal output to DIGITAL METER (IC802).
12	RD METER	O	RD signal output to DIGITAL METER (IC802).
13	WR METER	O	WR signal output to DIGITAL METER (IC802).
14 to 21	—	O	Not used (Open).
22 to 29	AD0 to AD7	I	Key switch AD0 to AD7 series input.
30	XRST	I	System reset input. "L": Active
31	EXTAL	I	System clock input. (4.19MHz).
32	XTAL	O	System clock output (4.19MHz).
33	VSS	—	Ground
34 to 57	S0 to S23	O	Fluorescent indicator display segment drive output.
58 to 70	T12 to T0	O	Fluorescent indicator display grid drive output.
71	VFDP	I	–30V power supply for driving fluorescent indicator display.
72	VDD	—	Power supply (+5V).
73	NC	—	Not used (Connected to +5V)
74 to 77	D0 to D3 METER	I/O	DIGITAL METER (IC802) 4-bit data bus.
78	H	I	Not used (Connected to +5V)
79	REQ	I	Communication request signal input from MAIN, MECHA CONTROL (IC310).
80	MODE	I	Not used (Connected to Ground).

• **IC802 MSM6338RS (DIGITAL METER)**



Pin No.	Pin Name	I/O	Function
1	DATA	I	fs serial data input (2's complement)
2	BCK	I	fs serial data fetch clock (Bit clock)
3	LRCK	I	fs input Lch/Rch discrimination signal. "H": Rch, "L": Lch.
4	XRST	I	Reset input. "L": Reset.
5	WR	I	Data write request input (Data write at rising edge)
6	RD	I	Data read request input ("L": Read enable)
7	CS	I	Chip select input ("L": Select)
8	Vss	—	Ground
9	D0	I/O/Z	4-bit data bus (Tristate)
10	NC	—	Not used (Open).
11	D1	I/O/Z	4-bit data bus (Tristate)
12	D2	I/O/Z	
13	D3	I/O/Z	
14	A0	I	Address input. Selects internal register.
15	A1	I	
16	VDD	—	Power supply (+5V).


SECTION 5 EXPLODED VIEWS

NOTE:

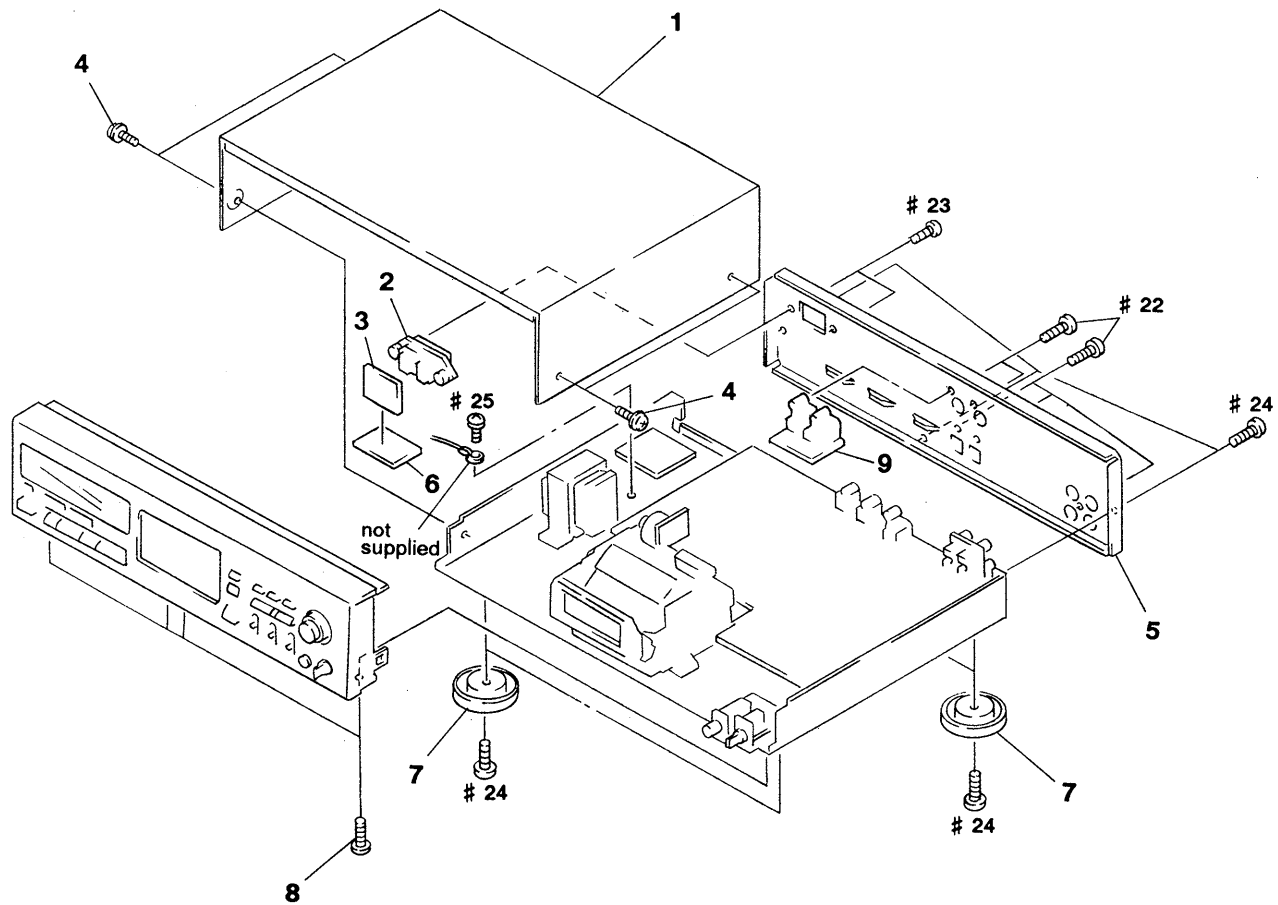
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.


- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
CND : Canadian model

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

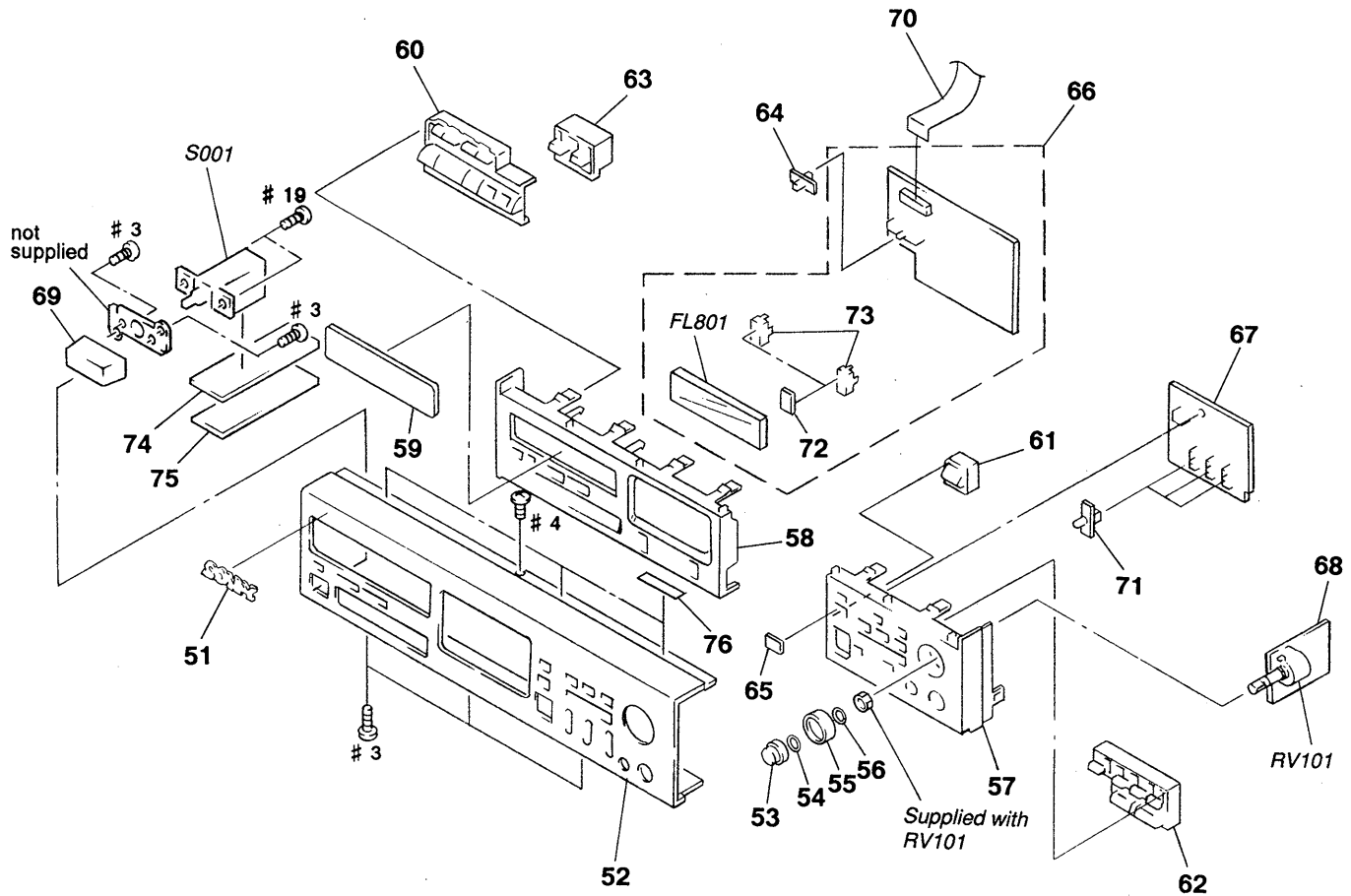
5-1. CASE AND BACK PANEL SECTION



Ref. No.	Part No.	Description
1	3-350-407-41	CASE
 2	1-251-234-11	INLET, AC (~AC IN)
* 3	1-661-406-11	IL COVER BOARD
4	3-704-366-21	SCREW (CASE) (M3X10)
* 5	3-936-350-01	PANEL, BACK (US, CND)

Remark	Ref. No.	Part No.	Description	Remark
	* 5	3-936-350-11	PANEL, BACK (AEP, UK)	
	* 6	1-661-405-11	INLET BOARD	
	7	4-956-885-01	FOOT (F58175S2W)	
	8	3-703-685-21	SCREW (+BV 3X8)	
	* 9	1-661-402-11	COAX I/O BOARD	

5-2. FRONT PANEL SECTION



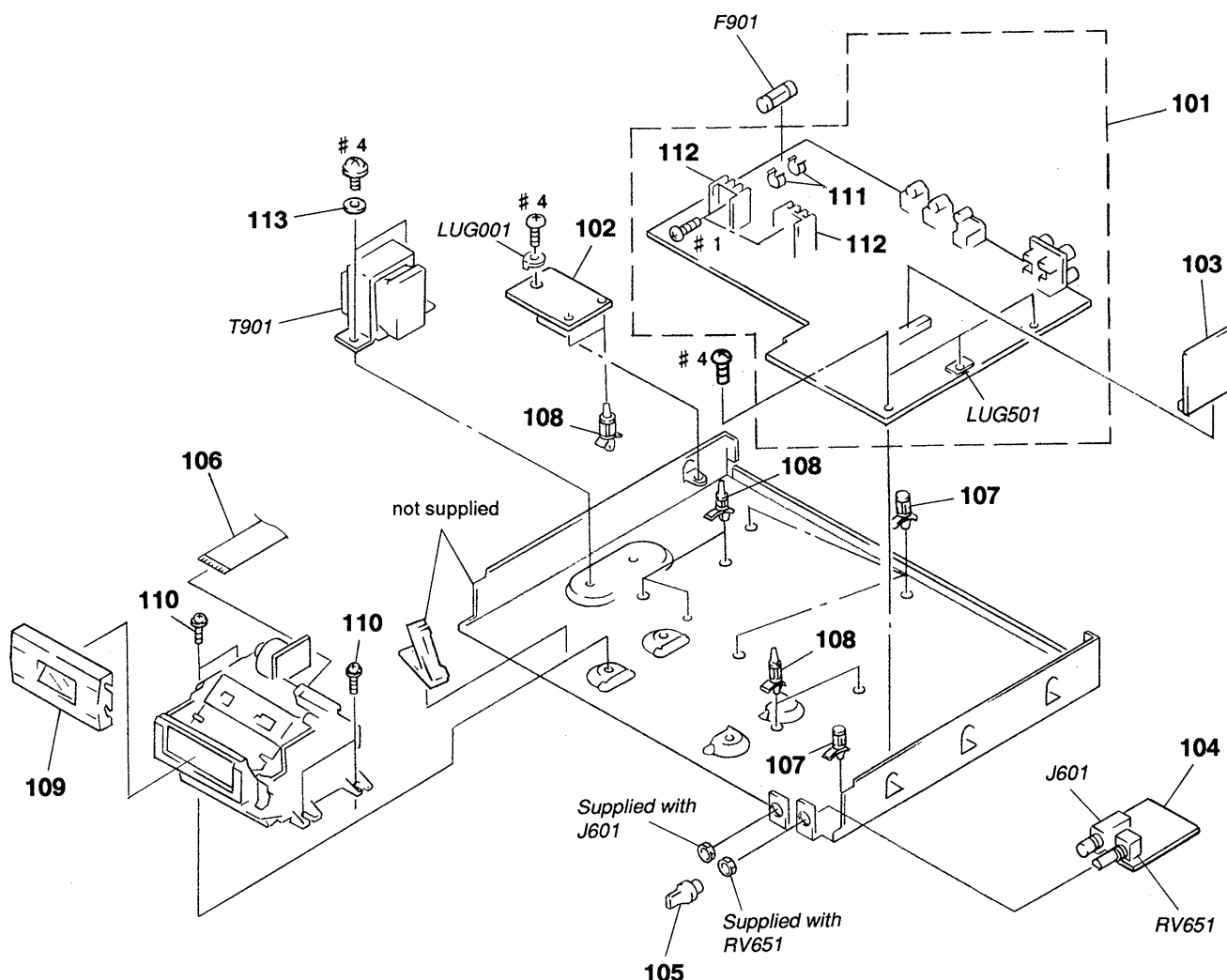
The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.



Les composants identifiés par une marque \triangle sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.


Ref. No.	Part No.	Description
51	4-942-568-01	EMBLEM (NO. 5), SONY
52	3-922-821-31	PANEL, FRONT
53	3-382-635-01	KNOB (REC-R)
54	3-356-957-01	SPRING
55	3-382-634-01	KNOB (REC-L)
56	3-382-627-01	SPRING, RING
57	3-922-823-11	ESCUTCHEON (R)
58	3-922-822-03	ESCUTCHEON (L)
59	3-922-932-01	WINDOW (FL TUBE)
60	3-922-824-11	BUTTON (1)
61	3-922-825-11	BUTTON (2)
62	3-922-826-11	BUTTON (3)
63	3-922-827-11	BUTTON (4)
64	4-922-518-01	KNOB (TIMER)
65	4-969-185-01	WINDOW (REMOTE CONTROL)





Remark	Ref. No.	Part No.	Description	Remark
	* 66	A-2007-580-A	DISPLAY BOARD, COMPLETE	
	* 67	1-661-399-11	REMOCON BOARD	
	* 68	1-661-400-11	REC VOL BOARD	
	69	4-922-921-21	BUTTON (POWER)	
	70	1-775-464-11	WIRE (FLAT TYPE) (17 CORE)	
	71	3-917-216-02	KNOB (TIMER)	
	* 72	4-932-810-11	CUSHION (FL)	
	* 73	4-947-170-01	HOLDER	
	* 74	1-661-403-11	AC SW BOARD	
	* 75	1-661-404-11	SW COVER BOARD	
	76	3-831-441-XX	CUSHION, SPEAKER	
	FL801	1-517-382-11	INDICATOR TUBE, FLUORESCENT	
	RV101	1-241-937-11	RES, VAR, CARBON 20K/20K (REC LEVEL)	
	\triangle S001	1-572-267-51	SWITCH, PUSH (AC POWER) (1 KEY) (POWER)	

5-3. CHASSIS SECTION

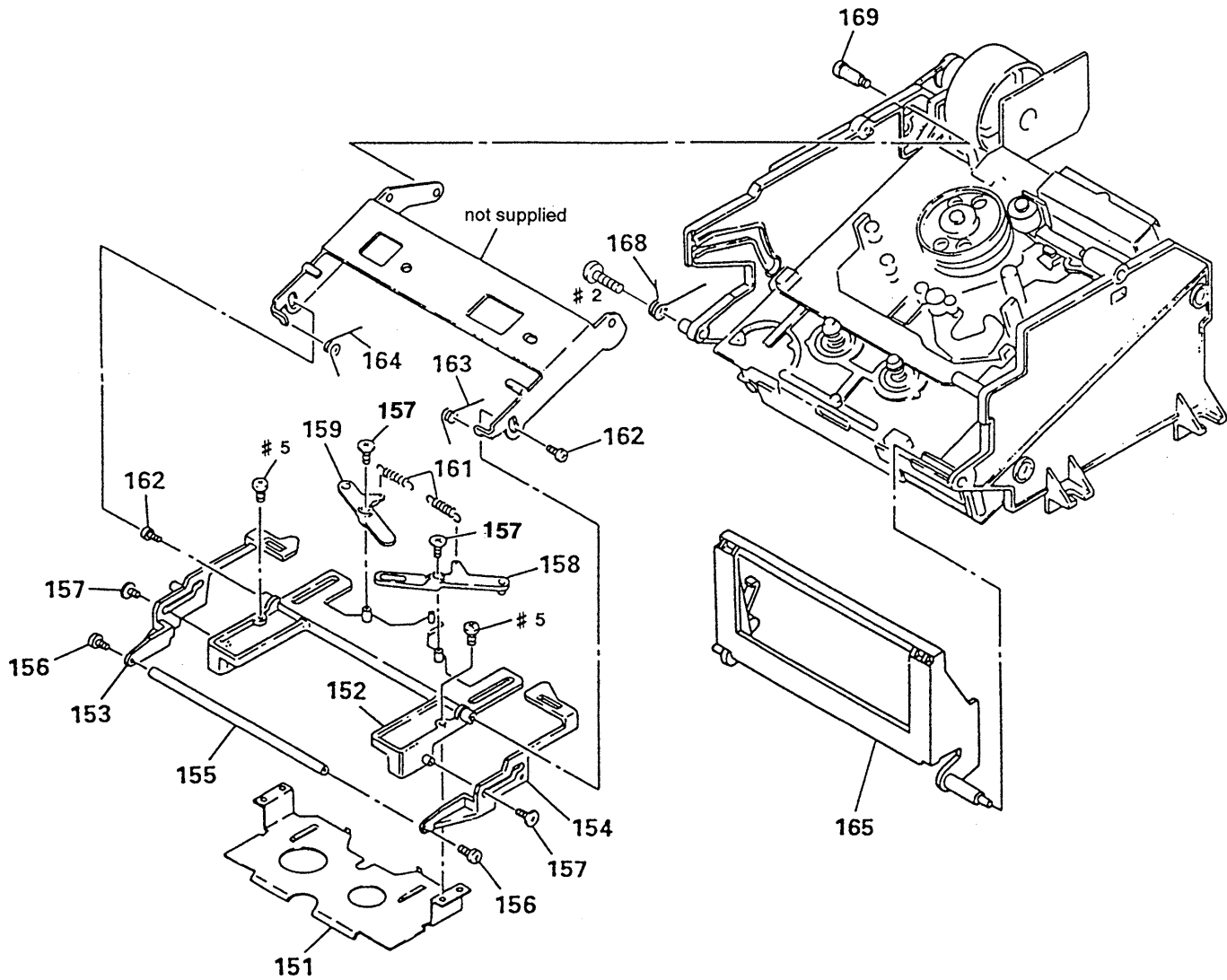


The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

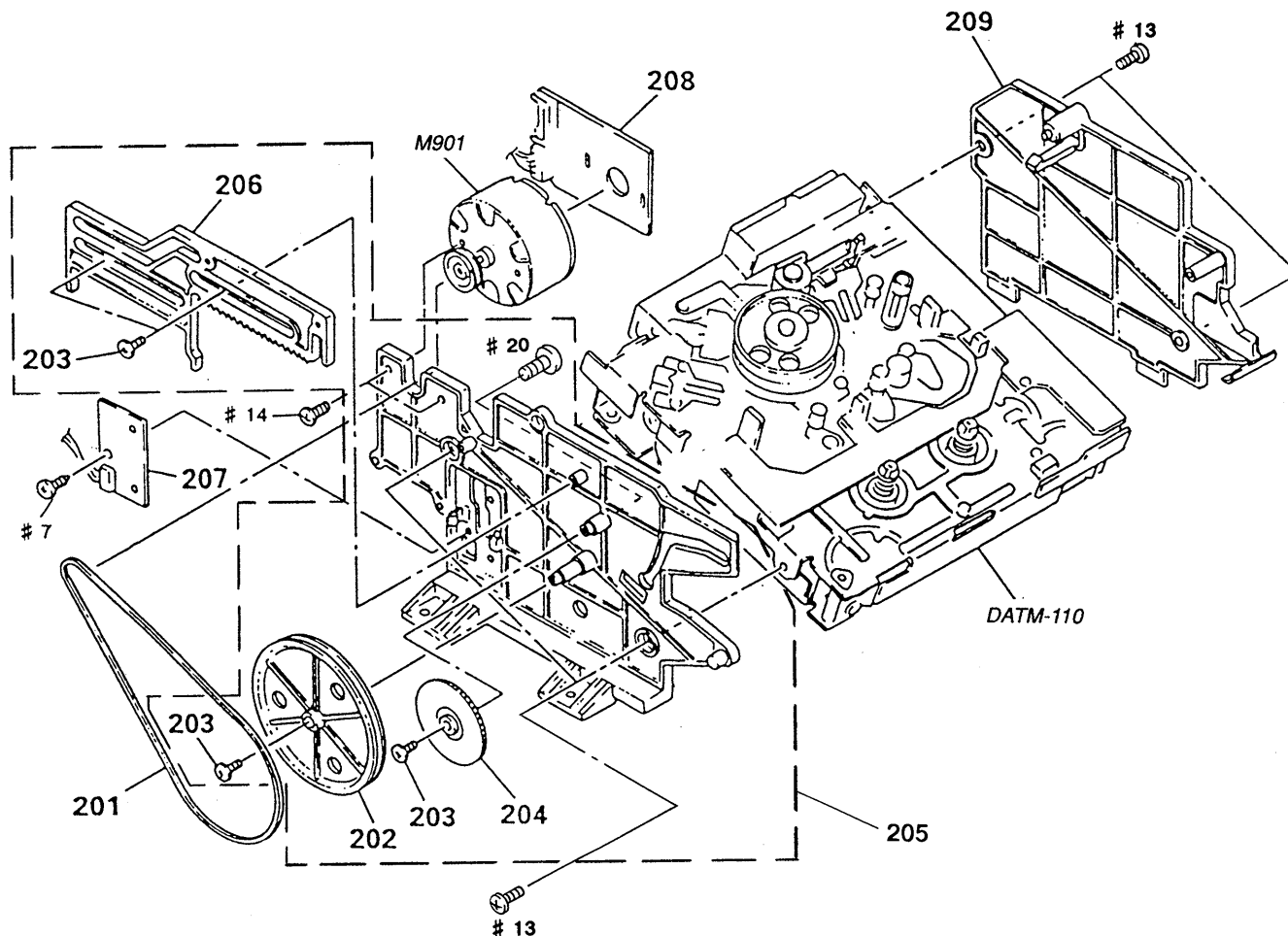
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 101	A-2007-577-A	MAIN BOARD, COMPLETE (US, CND)		* 111	1-533-213-31	HOLDER, FUSE	
* 101	A-2007-587-A	MAIN BOARD, COMPLETE (AEP, UK)		* 112	4-363-146-71	HEAT SINK, V. OUT	
* 102	1-661-401-11	PRIMARY BOARD		113	3-701-418-00	WASHER, SPECIAL	
* 103	1-656-335-11	SBM DF BOARD		 F901	1-532-464-51	TIME-LAG FUSE (2. 5A/250V) (AEP, UK)	
* 104	1-656-334-11	HEADPHONE BOARD		 F901	1-576-105-11	FUSE (2. 5A/250V) (US, CND)	
105	X-3362-818-1	KNOB (DIA. 12) ASSY (B), FLAT		J601	1-770-904-11	JACK (LARGE TYPE) (PHONES)	
106	1-775-389-11	WIRE (FLAT TYPE) (31 CORE)		* LUG001	3-346-266-12	PLATE, GROUND	
* 107	3-670-570-00	SPACER, SUPPORT		* LUG501	4-916-318-01	PLATE, GROUND	
108	4-924-098-01	HOLDER, PC BOARD		RV651	1-223-620-11	RES, VAR, CARBON 20K/20K (PHONE LEVEL)	
109	X-3366-266-1	PANEL (CASSETTE) ASSY		 T901	1-427-889-11	TRANSFORMER, POWER (US, CND)	
110	4-886-821-11	SCREW, S TIGHT, +PTWH 3X6		 T901	1-427-890-11	TRANSFORMER, POWER (AEP, UK)	

5-4. CASSETTE COMPARTMENT SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	3-373-224-01	HOLDER (LOWER)		161	3-632-859-00	SPRING, BRAKE LEVER RETURN	
152	3-373-237-03	HOLDER (UPPER), CASSETTE					
153	3-373-223-01	SLIDER (L)		162	3-318-203-61	SCREW (B1.7X4), TAPPING	
154	3-373-222-01	SLIDER (R)		163	3-373-215-01	SPRING (R), TORSION	
* 155	3-373-217-01	SHAFT (JOINT)		164	3-373-216-01	SPRING (L), TORSION	
				165	3-382-648-01	HOLDER (WINDOW)	
156	3-345-648-61	SCREW (M1.4), TOOTHED LOCK		168	3-373-212-01	SPRING (CASSETTE)	
157	3-318-201-11	SCREW (B) (1.4X3), TAPPING					
158	3-373-218-01	LEVER (R)		169	4-931-471-01	SCREW (STEP)	
159	3-373-219-01	LEVER (L)					

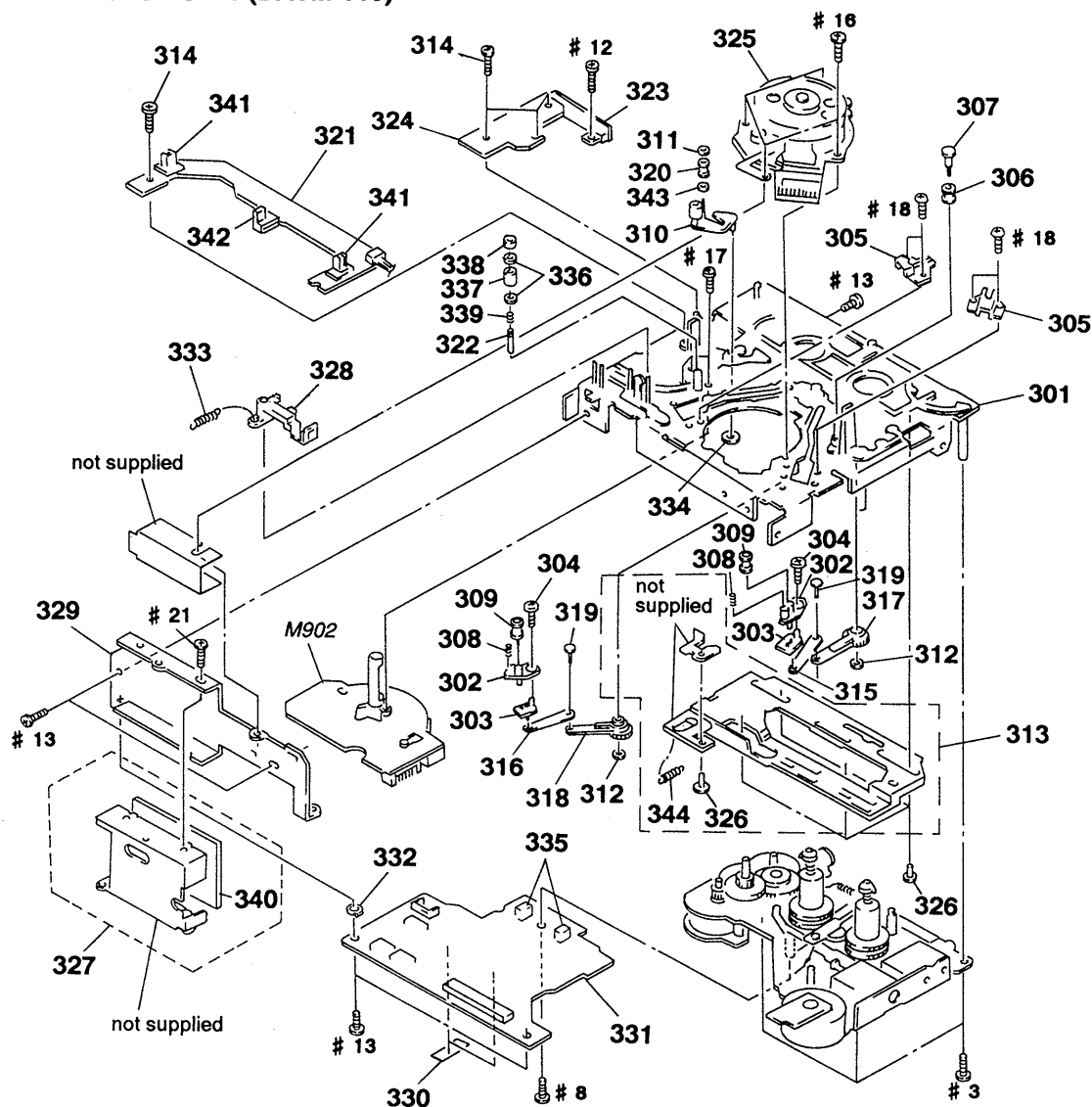
5-5. CHASSIS L/R SECTION



Ref. No.	Part No.	Description
201	4-931-470-01	BELT (DRIVING)
202	3-373-214-01	PULLEY
203	2-623-756-01	SCREW, (B1.7X3), TAPPING
204	3-373-213-01	GEAR, DRIVING
205	A-2004-153-E	CHASSIS (L) ASSY

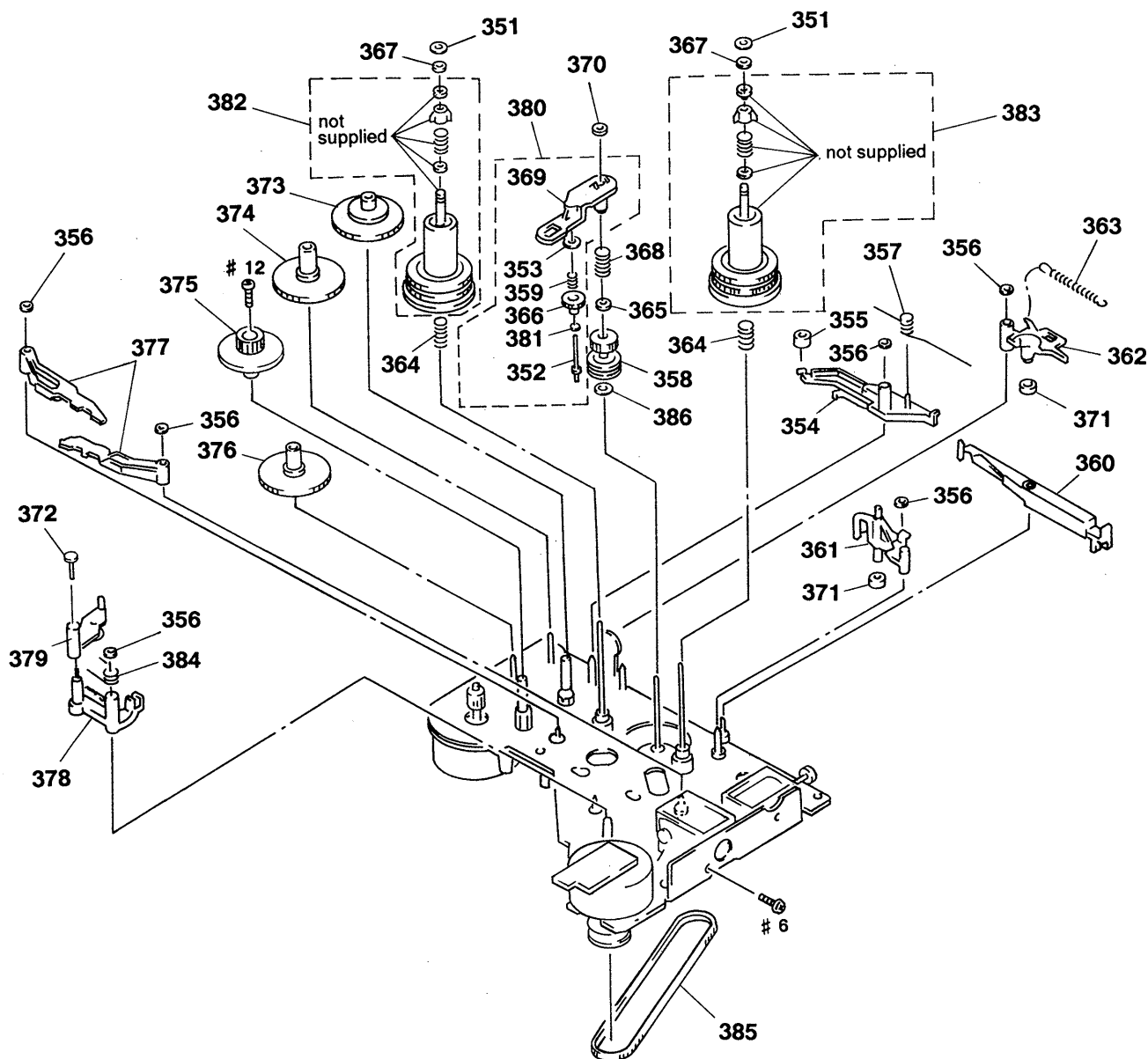
Ref. No.	Part No.	Description
206	3-373-221-01	SLIDER (RACK)
* 207	1-655-916-11	CASSETTE COMPARTMENT SW BOARD
* 208	1-655-913-11	CASSETTE COMPARTMENT MOTOR BOARD
* 209	3-373-235-01	CHASSIS (R)
M901	X-3370-655-1	MOTOR ASSY (CASSETTE COMPARTMENT)

5-6. MECHANISM SECTION-1 (DATM-110)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 301	X-3366-740-1	CHASSIS ASSY, MECHANICAL		* 324	1-639-306-11	CAM SLIDER BOARD	
* 302	3-368-390-01	BASE (#1 GUIDE)		325	8-848-567-11	DRUM ASSY DOU-03A	
303	3-368-409-01	JOINT (#1 GUIDE)					
304	3-368-413-01	SCREW (1.4), +P TAPPING (B)		326	3-368-414-01	SHAFT (CAM SLIDER GUIDE)	
* 305	3-368-442-01	CATCHER		* 327	A-2001-587-A	RF COMPLETE ASSY	
306	3-368-399-01	GUIDE, ROLLER		328	X-3370-965-1	LEVER (CLEANER) ASSY	
307	3-908-644-01	SHAFT (ROLLER GUIDE)		* 329	3-368-391-01	BRACKET (RF)	
308	3-368-436-01	SPRING (#1 GUIDE), COMPRESSION		330	3-831-441-XX	CUSHION, SPEAKER	
309	X-3371-518-1	ROLLER GUIDE ASSY		* 331	A-2007-419-A	DRUM DRIVE BOARD, COMPLETE	
310	X-3363-025-1	PINCH LEVER ASSY		* 332	4-870-539-00	PLATE, GROUND	
311	3-315-384-31	WASHER, STOPPER		333	3-927-041-01	SPRING (16G), TENSION	
312	3-368-398-01	BUSHING		334	3-321-813-01	WASHER, COTTER POLYETHYLENE	
* 313	A-2003-708-A	SLIDER ASSY, CAM		* 335	3-343-491-01	HOLDER (S SENSOR B)	
314	3-372-761-01	SCREW (M1.7X4), TAPPING		336	3-337-677-01	FLANGE	
315	3-368-427-01	LEVER (LOAD-T)		337	3-337-676-01	GUIDE, FIXED	
316	3-368-426-01	LEVER (LOAD-S)		338	3-337-605-01	NUT, ADJUSTMENT	
317	3-368-444-01	GEAR (LOAD-T)		339	3-389-294-01	SPRING (T2 300G), COMPRESSION	
318	3-368-443-01	GEAR (LOAD-S)		* 340	A-2006-455-A	RF AMP BOARD, COMPLETE	
319	3-368-415-01	SHAFT (LOAD LEVER JOINT)		* 341	3-368-457-01	HOLDER (END SENSOR) (RECEIVE)	
320	3-384-243-01	GUIDE (T3), ROLLER		* 342	3-368-456-01	HOLDER (END SENSOR LIGHT)	
* 321	1-639-305-11	TOP END SENSOR BOARD		343	3-387-983-01	POLY-SLIDER (T3 GUIDE)	
322	3-337-674-01	SHAFT, GUIDE		344	3-368-439-01	SPRING (PINCH PRESS), TENSION	
* 323	1-639-301-11	RGN SW BOARD		M902	8-835-361-01	MOTOR, DC U-17B (CAPSTAN)	

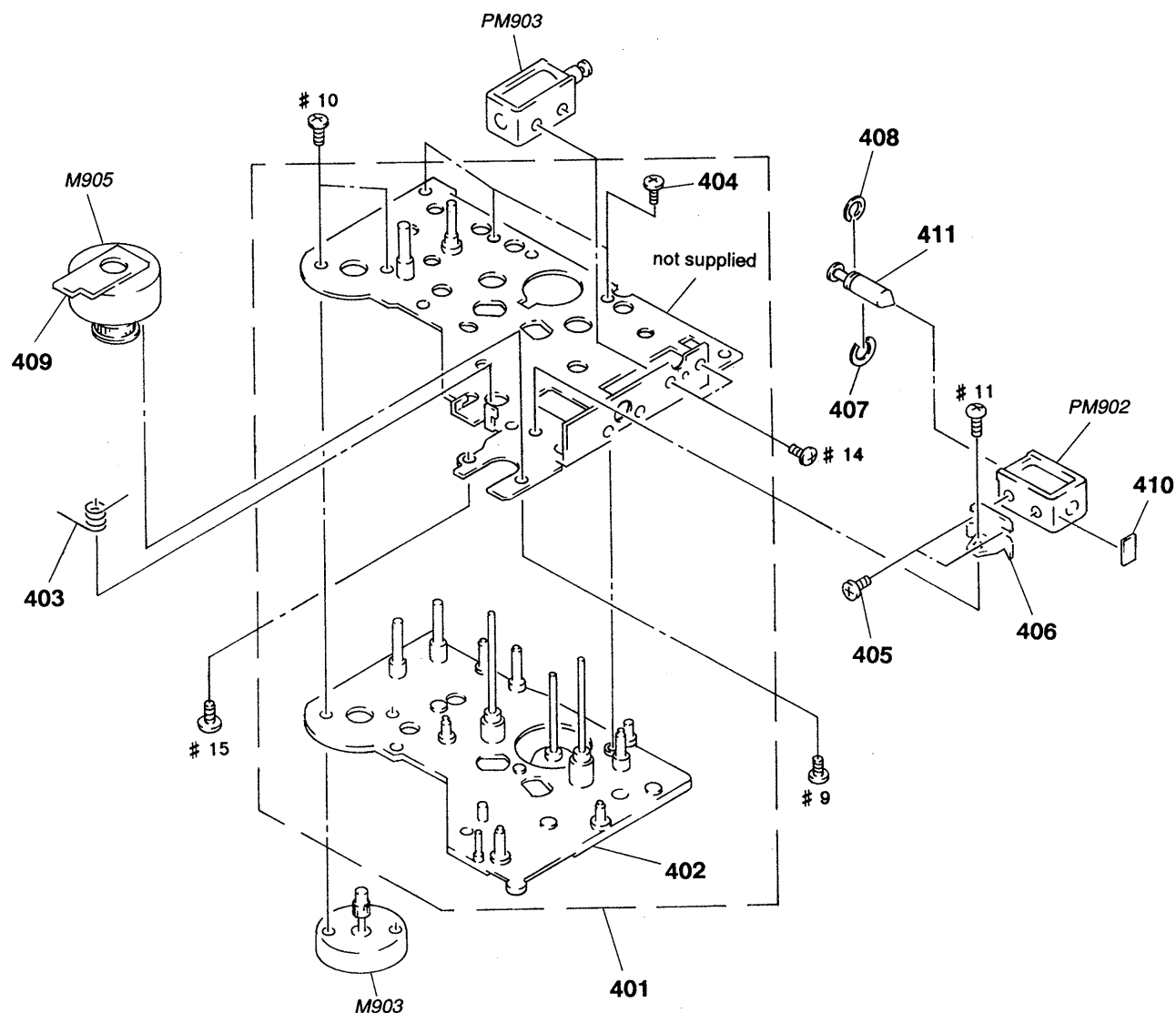
5-7. MECHANISM SECTION-2 (DATM-110)



Ref. No.	Part No.	Description	Remark
351	3-315-384-01	WASHER, STOPPER	
352	3-375-210-01	SHAFT (GOOSENECK GEAR)	
353	3-368-422-01	POLY-SLIDER (DIA. 5.5-DIA. 1.5)	
* 354	3-368-455-01	LEVER (GEAR LOCK)	
355	3-368-418-01	TUBE (BREAK)	
356	3-368-398-01	BUSHING	
357	3-368-430-01	SPRING (GEAR LOCK)	
358	X-3363-022-1	GEAR (REEL DRIVE) ASSY	
359	3-923-260-01	SPRING, COMPRESSION	
* 360	3-368-453-01	LEVER (BRAKE SOLENOID)	
* 361	3-368-447-01	LEVER (BRAKE S)	
* 362	3-368-446-01	LEVER (BRAKE T)	
363	3-368-438-01	SPRING (BREAK), TENSION	
364	3-905-586-02	SPRING (FF/REW), COMPRESSION	
365	3-368-422-11	POLY-SLIDER (DIA. 5.5-DIA. 1.5)	
366	3-368-406-01	GEAR (GOOSENECK)	
367	3-578-224-00	WASHER	
368	3-923-261-01	SPRING (FR LEVER), COMPRESSION	
369	3-368-450-01	LEVER (F/R)	

Ref. No.	Part No.	Description	Remark
370	3-315-384-31	WASHER, STOPPER	
371	3-377-332-01	TUBE (BREAK2)	
372	3-368-415-01	SHAFT (LOAD LEVER JOINT)	
373	3-368-421-01	GEAR (CAM DRIVE C)	
374	3-373-039-01	GEAR (CAM DRIVE B)	
375	3-368-403-01	GEAR (CAM DRIVE D)	
376	3-368-402-01	GEAR (CAM DRIVE A, B)	
377	X-3363-024-1	LEVER (BT) ASSY	
378	X-3369-126-1	LEVER (BT SOLENOID)	
* 379	3-368-454-01	LEVER (BT SELECTION)	
380	X-3364-581-1	LEVER (F/R) ASSY	
381	3-701-436-01	WASHER, 1.6	
382	A-2004-476-A	TABLE (T) ASSY, REEL	
383	A-2004-475-A	TABLE (S) ASSY, REEL	
384	3-383-478-01	SPRING (B.T LEVER RETURN)	
385	3-368-417-01	BELT (170TN10-1.0T), TIMING	
386	3-701-436-01	WASHER, 1.6	

5-8. MECHANISM SECTION-3 (DATM-110)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 401	A-2004-478-A	CHASSIS (REEL) ASSY		* 409	1-639-304-14	REEL MOTOR BOARD	
* 402	X-3366-312-1	CHASSIS ASSY, REEL		* 410	3-928-150-01	SPACER (P)	
403	3-368-431-01	SPRING (B.T SOLENOID)		411	3-380-525-01	ARBOR (BT ADJUSTMENT), MAVABLE	
404	2-623-756-01	SCREW, (B1. 7X3), TAPPING		M903	X-3363-109-1	MOTOR (CAM) ASSY	
405	3-308-423-01	SCREW (M2. 6), STEP		M905	X-3363-110-1	MOTOR (REEL) ASSY	
* 406	3-368-416-01	BRACKET (B. T SOLENOID)		PM902	1-454-536-11	SOLENOID, PLUNGER (LOADING)	
407	3-919-599-01	SPACER (P)		PM903	1-454-732-11	SOLENOID, PLUNGER (REEL MOTOR CONTROL)	
408	3-905-867-01	SPRING (STOPPER)					

SECTION 6 ELECTRICAL PARTS LIST

AC SW CAM SLIDER

CASSETTE COMPARTMENT MOTOR

CASSETTE COMPARTMENT SW

COAX I/O

NOTE:

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F : nonflammable

- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA..., uPB...: μ PB...,
uPC...: μ PC..., uPD...: μ PD...
- CAPACITORS
uF : μ F
- COILS
uH : μ H
- Abbreviation
CND : Canadian model

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-661-403-11	AC SW BOARD *****		*	1-655-916-11	CASSETTE COMPARTMENT SW BOARD *****	
		< CONNECTOR >				< SWITCH >	
CN004	1-580-230-51	PIN, CONNECTOR (PC BOARD) 2P		S1	1-571-958-11	SWITCH, PUSH (1 KEY) (CASSETTE TABLE IN)	
		< SWITCH >		S2	1-571-958-11	SWITCH, PUSH (1 KEY) (CASSETTE TABLE OUT)	
Δ S001	1-572-267-51	SWITCH, PUSH (AC POWER) (1 KEY) (POWER)		*****			
*****				*	1-661-402-11	COAX I/O BOARD *****	
*	1-639-306-11	CAM SLIDER BOARD *****				< CAPACITOR >	
		< JUMPER RESISTOR >		C520	1-162-306-11	CERAMIC 0.01uF 20% 16V	
JW04	1-216-296-91	CONDUCTOR, CHIP (3216)		C523	1-162-179-11	CERAMIC 0.1uF 50V	
		< SWITCH >		C524	1-162-282-31	CERAMIC 100PF 10% 50V	
SW1	1-570-953-11	SWITCH, PUSH (1 KEY) (STOP DET)		C525	1-162-306-11	CERAMIC 0.01uF 20% 16V	
SW2	1-570-953-11	SWITCH, PUSH (1 KEY) (FWD DET)		C526	1-164-159-11	CERAMIC 0.1uF 50V	
*****						< CONNECTOR >	
*	1-655-913-11	CASSETTE COMPARTMENT MOTOR BOARD *****		* CN521	1-564-506-11	PLUG, CONNECTOR 3P	
		< CAPACITOR >				< JACK >	
C1	1-161-772-11	CERAMIC 0.1uF 10% 25V		J521	1-770-905-11	JACK, PIN 1P (DIGITAL COAXIAL IN)	
		< CONNECTOR >		J522	1-778-228-11	JACK, PIN 1P (DIGITAL COAXIAL OUT)	
* CN1	1-564-498-11	PIN, CONNECTOR 5P				< RESISTOR >	
* CN2	1-564-337-00	PIN, CONNECTOR 3P		R521	1-247-804-11	CARBON 75 5% 1/4W	
		< MOTOR >		R522	1-249-401-11	CARBON 47 5% 1/4W F	
M901	X-3370-655-1	MOTOR ASSY (CASSETTE COMPARTMENT)		R523	1-247-804-11	CARBON 75 5% 1/4W	
*****				R524	1-249-417-11	CARBON 1K 5% 1/4W F	
						< TRANSFORMER >	
				T521	1-409-594-11	COIL (WITH CORE)	

DISPLAY

DRUM DRIVE

Ref. No.	Part No.	Description	Remark
*	A-2007-580-A	DISPLAY BOARD, COMPLETE *****	
*	4-932-810-11	CUSHION (FL)	
*	4-947-170-01	HOLDER	
		< CAPACITOR >	
C881	1-164-096-11	CERAMIC 0.01uF	50V
C882	1-164-096-11	CERAMIC 0.01uF	50V
C883	1-164-096-11	CERAMIC 0.01uF	50V
C884	1-126-177-11	ELECT 100uF	20% 10V
C885	1-164-096-11	CERAMIC 0.01uF	50V
C886	1-164-096-11	CERAMIC 0.01uF	50V
		< CONNECTOR >	
CN801	1-568-860-11	SOCKET, CONNECTOR 17P	
		< COMPOSITION CIRCUIT BLOCK >	
CP801	1-233-566-11	COMPOSITION CIRCUIT BLOCK (10KX10)	
CP802	1-233-566-11	COMPOSITION CIRCUIT BLOCK (10KX10)	
CP803	1-233-566-11	COMPOSITION CIRCUIT BLOCK (10KX10)	
CP804	1-233-566-11	COMPOSITION CIRCUIT BLOCK (10KX10)	
		< FLUORESCENT INDICATOR >	
FL801	1-517-382-11	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC801	8-752-869-39	IC CXP82316-061Q	
IC802	8-759-995-09	IC MSM6338RS	
		< TRANSISTOR >	
Q801	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q802	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q803	8-729-620-05	TRANSISTOR 2SC2603-EF	
		< RESISTOR >	
R801	1-249-427-11	CARBON 6.8K 5%	1/4W F
R802	1-249-415-11	CARBON 680 5%	1/4W F
R803	1-249-417-11	CARBON 1K 5%	1/4W F
R804	1-249-419-11	CARBON 1.5K 5%	1/4W F
R805	1-249-423-11	CARBON 3.3K 5%	1/4W F
R806	1-249-425-11	CARBON 4.7K 5%	1/4W F
R807	1-249-429-11	CARBON 10K 5%	1/4W F
R811	1-249-427-11	CARBON 6.8K 5%	1/4W F
R812	1-249-415-11	CARBON 680 5%	1/4W F
R813	1-249-417-11	CARBON 1K 5%	1/4W F
R814	1-249-419-11	CARBON 1.5K 5%	1/4W F
R815	1-249-423-11	CARBON 3.3K 5%	1/4W F
R817	1-249-431-11	CARBON 15K 5%	1/4W
R818	1-249-435-11	CARBON 33K 5%	1/4W

Ref. No.	Part No.	Description	Remark
R821	1-249-427-11	CARBON 6.8K 5%	1/4W F
R831	1-249-427-11	CARBON 6.8K 5%	1/4W F
R841	1-249-437-11	CARBON 47K 5%	1/4W
R851	1-249-427-11	CARBON 6.8K 5%	1/4W F
R861	1-249-437-11	CARBON 47K 5%	1/4W
R871	1-249-437-11	CARBON 47K 5%	1/4W
R881	1-249-417-11	CARBON 1K 5%	1/4W F
R882	1-249-437-11	CARBON 47K 5%	1/4W
R883	1-249-437-11	CARBON 47K 5%	1/4W
R884	1-249-437-11	CARBON 47K 5%	1/4W
R885	1-249-437-11	CARBON 47K 5%	1/4W
R886	1-249-437-11	CARBON 47K 5%	1/4W
R887	1-249-417-11	CARBON 1K 5%	1/4W F
R888	1-249-437-11	CARBON 47K 5%	1/4W
R889	1-249-437-11	CARBON 47K 5%	1/4W
R890	1-249-429-11	CARBON 10K 5%	1/4W
R891	1-249-429-11	CARBON 10K 5%	1/4W
		< SWITCH >	
S802	1-554-937-11	SWITCH, KEY BOARD (STOP ■)	
S803	1-554-937-11	SWITCH, KEY BOARD (PLAY ►)	
S804	1-554-937-11	SWITCH, KEY BOARD (PREVIOUS, AMS ◀◀)	
S805	1-554-937-11	SWITCH, KEY BOARD (NEXT, AMS ▶▶)	
S806	1-554-937-11	SWITCH, KEY BOARD (MODE)	
S807	1-554-937-11	SWITCH, KEY BOARD (RESET)	
S811	1-554-937-11	SWITCH, KEY BOARD (REW ◀◀)	
S812	1-554-937-11	SWITCH, KEY BOARD (FF ▶▶)	
S813	1-554-937-11	SWITCH, KEY BOARD (REC ●)	
S814	1-554-937-11	SWITCH, KEY BOARD (PAUSE ■■)	
S815	1-554-937-11	SWITCH, KEY BOARD (REC MUTE ○)	
S817	1-571-520-11	SWITCH, SLIDE (TIMER)	
		< VIBRATOR >	
X801	1-577-359-21	VIBRATOR, CERAMIC (4.19MHz)	

*	A-2007-419-A	DRUM DRIVE BOARD, COMPLETE *****	
*	3-343-491-01	HOLDER (S SENSOR B)	
*	4-870-539-00	PLATE, GROUND	
		< CAPACITOR >	
C01	1-126-176-11	ELECT 220uF	20% 10V
C02	1-126-157-11	ELECT 10uF	20% 16V
C03	1-124-257-00	ELECT 2.2uF	20% 50V
C04	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V
C05	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V
C08	1-163-001-11	CERAMIC CHIP 220PF	10% 50V

DRUM DRIVE

HEADPHONE

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C21	1-163-001-11	CERAMIC CHIP 220PF 10%	50V	JW37	1-216-296-91	CONDUCTOR, CHIP (3216)	
C31	1-163-001-11	CERAMIC CHIP 220PF 10%	50V			< PHOTO INTERRUPTER >	
C32	1-164-232-11	CERAMIC CHIP 0.01uF	50V	PH01	8-719-939-23	PHOTO INTERRUPTER GP-2S09-C	(TAKE-UP REEL)
C33	1-163-038-91	CERAMIC CHIP 0.1uF	25V	PH02	8-719-939-23	PHOTO INTERRUPTER GP-2S09-C(SUPPLY REEL)	
C34	1-163-038-91	CERAMIC CHIP 0.1uF	25V			< TRANSISTOR >	
C35	1-163-038-91	CERAMIC CHIP 0.1uF	25V	Q01	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
		< CONNECTOR >		Q02	8-729-101-07	TRANSISTOR 2SB798-DL	
CN01	1-691-459-21	PIN, CONNECTOR (PC BOARD) 3P				< RESISTOR >	
* CN02	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P		R01	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
* CN03	1-564-338-00	PIN, CONNECTOR 4P		R02	1-216-073-00	METAL CHIP 10K 5%	1/10W
* CN04	1-564-336-00	PIN, CONNECTOR 2P		R03	1-216-029-00	METAL CHIP 150 5%	1/10W
* CN06	1-564-339-00	PIN, CONNECTOR 5P		R04	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
CN07	1-564-721-11	PIN, CONNECTOR (SMALL TYPE) 5P		R05	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
* CN08	1-568-873-11	SOCKET, CONNECTOR 31P		R06	1-216-085-00	METAL CHIP 33K 5%	1/10W
* CN09	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P		R07	1-216-025-91	METAL GLAZE 100 5%	1/10W
* CN10	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P		R08	1-216-049-91	METAL GLAZE 1K 5%	1/10W
		< IC >		R09	1-216-073-00	METAL CHIP 10K 5%	1/10W
IC01	8-752-060-73	IC CX20115A-T4		R10	1-216-073-00	METAL CHIP 10K 5%	1/10W
IC02	8-759-502-80	IC LM358M		R11	1-216-073-00	METAL CHIP 10K 5%	1/10W
IC03	8-759-502-80	IC LM358M		R12	1-216-073-00	METAL CHIP 10K 5%	1/10W
		< JUMPER RESISTOR >		R13	1-216-073-00	METAL CHIP 10K 5%	1/10W
JW06	1-216-296-91	CONDUCTOR, CHIP (3216)		R14	1-216-037-00	METAL CHIP 330 5%	1/10W
JW07	1-216-296-91	CONDUCTOR, CHIP (3216)		R21	1-216-073-00	METAL CHIP 10K 5%	1/10W
JW08	1-216-296-91	CONDUCTOR, CHIP (3216)		R22	1-216-081-00	METAL CHIP 22K 5%	1/10W
JW09	1-216-296-91	CONDUCTOR, CHIP (3216)		R23	1-216-077-00	METAL CHIP 15K 5%	1/10W
JW10	1-216-296-91	CONDUCTOR, CHIP (3216)		R24	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
JW11	1-216-296-91	CONDUCTOR, CHIP (3216)		R25	1-216-105-91	METAL GLAZE 220K 5%	1/10W
JW13	1-216-296-91	CONDUCTOR, CHIP (3216)		R26	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
JW14	1-216-296-91	CONDUCTOR, CHIP (3216)		R31	1-216-073-00	METAL CHIP 10K 5%	1/10W
JW15	1-216-296-91	CONDUCTOR, CHIP (3216)		R32	1-216-081-00	METAL CHIP 22K 5%	1/10W
JW17	1-216-296-91	CONDUCTOR, CHIP (3216)		R35	1-216-105-91	METAL GLAZE 220K 5%	1/10W
JW19	1-216-296-91	CONDUCTOR, CHIP (3216)		R36	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
JW21	1-216-296-91	CONDUCTOR, CHIP (3216)				*****	
JW22	1-216-296-91	CONDUCTOR, CHIP (3216)		*	1-656-334-11	HEADPHONE BOARD	
JW23	1-216-296-91	CONDUCTOR, CHIP (3216)				*****	
JW24	1-216-296-91	CONDUCTOR, CHIP (3216)				< CAPACITOR >	
JW25	1-216-296-91	CONDUCTOR, CHIP (3216)		C681	1-124-120-11	ELECT 220uF 20%	25V
JW26	1-216-296-91	CONDUCTOR, CHIP (3216)		C682	1-124-120-11	ELECT 220uF 20%	25V
JW27	1-216-296-91	CONDUCTOR, CHIP (3216)				< CONNECTOR >	
JW28	1-216-296-91	CONDUCTOR, CHIP (3216)		CN652	1-564-510-11	PLUG (MICRO CONNECTOR) 6P	
JW29	1-216-296-91	CONDUCTOR, CHIP (3216)					
JW31	1-216-296-91	CONDUCTOR, CHIP (3216)					
JW32	1-216-296-91	CONDUCTOR, CHIP (3216)					
JW33	1-216-296-91	CONDUCTOR, CHIP (3216)					
JW34	1-216-296-91	CONDUCTOR, CHIP (3216)					
JW35	1-216-296-91	CONDUCTOR, CHIP (3216)					
JW36	1-216-296-91	CONDUCTOR, CHIP (3216)					

HEADPHONE

IL COVER

INLET

MAIN

Ref. No.	Part No.	Description	Remark
< IC >			
IC601	8-759-602-83	IC M5238P	
< JACK >			
J601	1-770-904-11	JACK (LARGE TYPE) (PHONES)	
< COIL >			
L399	1-236-163-11	ENCAPSULATED COMPONENT	
L400	1-236-163-11	ENCAPSULATED COMPONENT	
< RESISTOR >			
R231	1-249-435-11	CARBON 33K 5% 1/4W	
R232	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R233	1-249-431-11	CARBON 15K 5% 1/4W	
R234	1-247-807-31	CARBON 100 5% 1/4W	
R281	1-249-435-11	CARBON 33K 5% 1/4W	
R282	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R283	1-249-431-11	CARBON 15K 5% 1/4W	
R284	1-247-807-31	CARBON 100 5% 1/4W	
R691	1-808-374-11	THERMISTOR, POSITIVE	
R692	1-808-374-11	THERMISTOR, POSITIVE	
< VARIABLE RESISTOR >			
RV651	1-223-620-11	RES, VAR, CARBON 20K/20K (PHONE LEVEL)	

*	1-661-406-11	IL COVER BOARD	

*	1-661-405-11	INLET BOARD	

< CONNECTOR >			
CN900	1-775-047-11	CORD (WITH CONNECTOR)	
< INLET >			
△IL001	1-251-234-11	INLET, AC (~AC IN)	

*	A-2007-577-A	MAIN BOARD, COMPLETE (US, CND)	

*	A-2007-587-A	MAIN BOARD, COMPLETE (AEP, UK)	

*	1-533-213-31	HOLDER, FUSE	
*	4-363-146-71	HEAT SINK, V.OUT	
	7-682-548-09	SCREW +B 3X8	

Ref. No.	Part No.	Description	Remark
	8-729-029-67	TRANSISTOR DTC114ESA-TP	
	8-729-900-80	TRANSISTOR UN4211-TA	
< CAPACITOR >			
C101	1-104-664-11	ELECT 47uF 20% 25V	
C102	1-162-286-31	CERAMIC 220PF 10% 50V	
C103	1-104-664-11	ELECT 47uF 20% 25V	
C107	1-130-481-00	MYLAR 0.0068uF 5% 50V	
C151	1-104-664-11	ELECT 47uF 20% 25V	
C152	1-162-286-31	CERAMIC 220PF 10% 50V	
C153	1-104-664-11	ELECT 47uF 20% 25V	
C157	1-130-481-00	MYLAR 0.0068uF 5% 50V	
C201	1-130-471-00	MYLAR 0.001uF 5% 50V	
C202	1-110-341-11	MYLAR 330PF 5% 50V	
C203	1-110-341-11	MYLAR 330PF 5% 50V	
C204	1-130-471-00	MYLAR 0.001uF 5% 50V	
C205	1-130-479-00	MYLAR 0.0047uF 5% 50V	
C206	1-124-443-00	ELECT 100uF 20% 10V	
C207	1-162-302-11	CERAMIC 0.0022uF 30% 16V	
C251	1-130-471-00	MYLAR 0.001uF 5% 50V	
C252	1-110-341-11	MYLAR 330PF 5% 50V	
C253	1-110-341-11	MYLAR 330PF 5% 50V	
C254	1-130-471-00	MYLAR 0.001uF 5% 50V	
C255	1-130-479-00	MYLAR 0.0047uF 5% 50V	
C256	1-124-443-00	ELECT 100uF 20% 10V	
C257	1-162-302-11	CERAMIC 0.0022uF 30% 16V	
C302	1-162-197-31	CERAMIC 6.8PF 10% 50V	
C304	1-124-903-11	ELECT 1uF 20% 50V	
C307	1-164-159-11	CERAMIC 0.1uF 50V	
C308	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C309	1-124-443-00	ELECT 100uF 20% 10V	
C310	1-164-159-11	CERAMIC 0.1uF 50V	
C311	1-162-198-31	CERAMIC 8.2PF 10% 50V	
C312	1-162-199-31	CERAMIC 10PF 5% 50V	
C313	1-162-197-31	CERAMIC 6.8PF 10% 50V	
C314	1-162-197-31	CERAMIC 6.8PF 10% 50V	
C327	1-162-198-31	CERAMIC 8.2PF 10% 50V	
C332	1-164-159-11	CERAMIC 0.1uF 50V	
C333	1-162-211-31	CERAMIC 33PF 5% 50V	
C334	1-124-907-11	ELECT 10uF 20% 50V	
C335	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C336	1-164-159-11	CERAMIC 0.1uF 50V	
C337	1-164-159-11	CERAMIC 0.1uF 50V	
C338	1-164-159-11	CERAMIC 0.1uF 50V	
C340	1-164-159-11	CERAMIC 0.1uF 50V	
C341	1-164-159-11	CERAMIC 0.1uF 50V	
C342	1-124-442-00	ELECT 330uF 20% 6.3V	
C343	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C344	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C345	1-162-294-31	CERAMIC 0.001uF 10% 50V	

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C351	1-162-306-11	CERAMIC	0.01uF 20% 16V	C662	1-136-165-00	FILM	0.1uF 5% 50V
C352	1-162-306-11	CERAMIC	0.01uF 20% 16V	C663	1-136-165-00	FILM	0.1uF 5% 50V
C353	1-162-294-31	CERAMIC	0.001uF 10% 50V	C664	1-136-165-00	FILM	0.1uF 5% 50V
C354	1-164-159-11	CERAMIC	0.1uF 50V	C665	1-136-165-00	FILM	0.1uF 5% 50V
C355	1-164-159-11	CERAMIC	0.1uF 50V	C666	1-136-165-00	FILM	0.1uF 5% 50V
C356	1-164-159-11	CERAMIC	0.1uF 50V	C667	1-136-165-00	FILM	0.1uF 5% 50V
C361	1-162-302-11	CERAMIC	0.0022uF 30% 16V	C668	1-124-443-00	ELECT	100uF 20% 10V
C362	1-162-302-11	CERAMIC	0.0022uF 30% 16V	C669	1-136-165-00	FILM	0.1uF 5% 50V
C431	1-162-302-11	CERAMIC	0.0022uF 30% 16V	C670	1-126-917-11	ELECT	3300uF 20% 6.3V
C432	1-162-305-11	CERAMIC	0.0068uF 30% 16V	C671	1-126-917-11	ELECT	3300uF 20% 6.3V
C433	1-162-288-31	CERAMIC	330PF 10% 50V	C672	1-136-165-00	FILM	0.1uF 5% 50V
C439	1-162-306-11	CERAMIC	0.01uF 20% 16V	C673	1-124-443-00	ELECT	100uF 20% 10V
C441	1-162-306-11	CERAMIC	0.01uF 20% 16V	C674	1-136-165-00	FILM	0.1uF 5% 50V
C442	1-161-494-00	CERAMIC	0.022uF 25V	C675	1-136-165-00	FILM	0.1uF 5% 50V
C443	1-162-301-11	CERAMIC	0.0015uF 20% 16V	C683	1-136-165-00	FILM	0.1uF 5% 50V
C444	1-124-907-11	ELECT	10uF 20% 50V	C684	1-126-941-11	ELECT	470uF 20% 6.3V
C445	1-162-306-11	CERAMIC	0.01uF 20% 16V	C901	1-124-563-11	ELECT	2200uF 20% 25V
C451	1-162-306-11	CERAMIC	0.01uF 20% 16V	C902	1-126-939-11	ELECT	10000uF 20% 16V
C452	1-126-963-11	ELECT	4.7uF 20% 50V	C903	1-126-941-11	ELECT	470uF 20% 6.3V
C453	1-124-907-11	ELECT	10uF 20% 50V	C904	1-126-917-11	ELECT	3300uF 20% 6.3V
C454	1-162-306-11	CERAMIC	0.01uF 20% 16V	C905	1-124-919-11	ELECT	220uF 20% 63V
C459	1-162-306-11	CERAMIC	0.01uF 20% 16V	C906	1-124-122-11	ELECT	100uF 20% 50V
C471	1-162-306-11	CERAMIC	0.01uF 20% 16V	C907	1-162-306-11	CERAMIC	0.01uF 20% 16V
C481	1-162-306-11	CERAMIC	0.01uF 20% 16V	C908	1-162-306-11	CERAMIC	0.01uF 20% 16V
C491	1-162-290-31	CERAMIC	470PF 10% 50V	C910	1-124-564-11	ELECT	4700uF 20% 25V
C492	1-162-306-11	CERAMIC	0.01uF 20% 16V	C911	1-124-902-00	ELECT	0.47uF 20% 50V
C502	1-162-294-31	CERAMIC	0.001uF 10% 50V	C912	1-126-942-61	ELECT	1000uF 20% 16V
C503	1-162-284-31	CERAMIC	150PF 10% 50V	C913	1-162-306-11	CERAMIC	0.01uF 20% 16V
C507	1-136-153-00	FILM	0.01uF 5% 50V	C920	1-124-564-11	ELECT	4700uF 20% 25V
C508	1-126-935-11	ELECT	470uF 20% 6.3V	C921	1-162-306-11	CERAMIC	0.01uF 20% 16V
C509	1-164-159-11	CERAMIC	0.1uF 50V	C922	1-126-942-61	ELECT	1000uF 20% 16V
C511	1-164-159-11	CERAMIC	0.1uF 50V	C923	1-162-306-11	CERAMIC	0.01uF 20% 16V
C515	1-136-169-00	FILM	0.22uF 5% 50V	C952	1-126-916-11	ELECT	1000uF 20% 6.3V
C527	1-164-159-11	CERAMIC	0.1uF 50V	C953	1-126-935-11	ELECT	470uF 20% 6.3V
C601	1-136-165-00	FILM	0.1uF 5% 50V	C998	1-164-159-11	CERAMIC	0.1uF 50V
C602	1-136-165-00	FILM	0.1uF 5% 50V	C999	1-164-159-11	CERAMIC	0.1uF 50V
C621	1-124-907-11	ELECT	10uF 20% 50V	< CONNECTOR >			
C622	1-124-907-11	ELECT	10uF 20% 50V	* CN301	1-564-706-31	PIN, CONNECTOR (SMALL TYPE) 4P	
C623	1-136-165-00	FILM	0.1uF 5% 50V	* CN302	1-568-845-11	SOCKET, CONNECTOR 31P	
C624	1-136-165-00	FILM	0.1uF 5% 50V	* CN303	1-568-836-11	SOCKET, CONNECTOR 17P	
C625	1-136-165-00	FILM	0.1uF 5% 50V	CN341	1-770-164-11	PIN, CONNECTOR (PC BOARD) 15P	
C626	1-136-165-00	FILM	0.1uF 5% 50V	* CN401	1-564-339-00	PIN, CONNECTOR 5P	
C627	1-126-941-11	ELECT	470uF 20% 6.3V	* CN601	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P	
C628	1-126-941-11	ELECT	470uF 20% 6.3V	CN651	1-564-510-11	PLUG (MICRO CONNECTOR) 6P	
C630	1-124-907-11	ELECT	10uF 20% 50V	CN691	1-573-095-11	SOCKET, CONNECTOR 15P	
C651	1-136-165-00	FILM	0.1uF 5% 50V	CN901	1-691-767-11	PLUG (MICRO CONNECTOR) 5P	
C652	1-136-165-00	FILM	0.1uF 5% 50V	CN902	1-691-768-11	PLUG (MICRO CONNECTOR) 6P	
C653	1-136-165-00	FILM	0.1uF 5% 50V				
C654	1-136-165-00	FILM	0.1uF 5% 50V				
C661	1-136-165-00	FILM	0.1uF 5% 50V				



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< DIODE >							
D101	8-719-987-63	DIODE 1N4148M		IC431	8-759-701-01	IC NJM2904M	
D102	8-719-987-63	DIODE 1N4148M		IC441	8-759-701-01	IC NJM2904M	
D103	8-719-987-63	DIODE 1N4148M		IC451	8-759-701-01	IC NJM2904M	
D104	8-719-987-63	DIODE 1N4148M		IC501	8-759-242-70	IC TC7WU04F	
D151	8-719-987-63	DIODE 1N4148M		IC602	8-759-602-83	IC M5238P	
D152	8-719-987-63	DIODE 1N4148M		IC603	8-759-330-53	IC CXD8493M-E1	
D153	8-719-987-63	DIODE 1N4148M		IC604	8-759-094-53	IC TA7805S (LBSONY)	
D154	8-719-987-63	DIODE 1N4148M		IC605	8-759-094-68	IC TA79005S-LBSONY	
D321	8-719-987-63	DIODE 1N4148M		IC606	8-759-094-53	IC TA7805S (LBSONY)	
D331	8-719-987-63	DIODE 1N4148M		IC651	8-759-900-72	IC NE5532P	
D333	8-719-987-63	DIODE 1N4148M		IC652	8-759-900-72	IC NE5532P	
D411	8-719-200-82	DIODE 11ES2		IC653	8-759-334-75	IC CXD8505AQ	
D412	8-719-200-82	DIODE 11ES2		IC654	8-759-094-53	IC TA7805S (LBSONY)	
D413	8-719-200-82	DIODE 11ES2		IC681	8-759-634-50	IC M5218AL	
D421	8-719-200-82	DIODE 11ES2		IC901	8-759-504-46	IC PQ05RF1	
D422	8-719-200-82	DIODE 11ES2		IC902	8-759-504-46	IC PQ05RF1	
D501	8-719-045-72	DIODE KV1550NT		IC903	8-759-602-66	IC M5230L-A	
D651	8-719-987-63	DIODE 1N4148M		IC999	8-759-426-52	IC AT24C01A-10SC-B	
D901	8-719-200-77	DIODE 10E2N		< IC LINK >			
D902	8-719-200-77	DIODE 10E2N		△ICP911	1-532-837-21	LINK, IC (PRF630, 630mA) (AEP, UK)	
D903	8-719-200-77	DIODE 10E2N		△ICP921	1-532-837-21	LINK, IC (PRF630, 630mA) (AEP, UK)	
D904	8-719-200-77	DIODE 10E2N		< JACK >			
D905	8-719-312-47	DIODE RBA-406B		* J101	1-569-443-11	JACK, PIN 4P (ANALOG (LINE))	
D906	8-719-200-82	DIODE 11ES2		< COIL >			
D907	8-719-987-63	DIODE 1N4148M		L301	1-410-324-11	INDUCTOR 4.7uH	
D908	8-719-015-13	DIODE UZP-9.1BC-TP		L302	1-410-509-11	INDUCTOR 10uH	
D911	8-719-200-77	DIODE 10E2N		L331	1-410-509-11	INDUCTOR 10uH	
D912	8-719-200-77	DIODE 10E2N		L341	1-410-515-11	INDUCTOR 33uH	
D913	8-719-200-77	DIODE 10E2N		L501	1-410-499-41	INDUCTOR 1.5uH	
D914	8-719-200-77	DIODE 10E2N		L502	1-410-509-11	INDUCTOR 10uH	
< FUSE >				L601	1-410-509-11	INDUCTOR 10uH	
△F901	1-532-464-51	TIME-LAG FUSE (2.5A/250V) (AEP, UK)		L991	1-410-501-11	INDUCTOR 2.2uH	
△F901	1-576-105-11	FUSE (2.5A/250V) (US, CND)		< GROUND >			
△F911	1-532-774-11	FUSE, MICRO (SECONDARY) (630mA/125V)	(US, CND)	* LUG501	4-916-318-01	PLATE, GROUND	
△F921	1-532-774-11	FUSE, MICRO (SECONDARY) (630mA/125V)	(US, CND)	LUG502	1-537-770-21	TERMINAL BOARD, GROUND	
< IC >				< TRANSISTOR >			
IC301	8-759-927-46	IC SN74HC00ANS		Q221	8-729-141-30	TRANSISTOR 2SC3623A-LK	
IC302	8-759-701-01	IC NJM2904M		Q271	8-729-141-30	TRANSISTOR 2SC3623A-LK	
IC304	8-752-355-55	IC CXD2605Q		Q321	8-729-900-89	TRANSISTOR DTC144ES	
IC305	8-752-337-79	IC CXK58257AM-10LL		Q322	8-729-900-89	TRANSISTOR DTC144ES	
IC306	8-759-925-90	IC SN74HC74ANS		Q340	8-729-620-05	TRANSISTOR 2SC2603-EF	
IC308	8-759-634-43	IC M51953BFP		Q341	8-729-900-89	TRANSISTOR DTC144ES	
IC310	8-752-839-48	IC CXP87532-026Q		Q342	8-729-029-21	TRANSISTOR DTA114ESA-TP	
IC331	8-759-242-84	IC TORX176 (DIGITAL OPTICAL IN)		Q351	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC332	8-759-242-85	IC TOTX176 (DIGITAL OPTICAL OUT)		Q411	8-729-029-67	TRANSISTOR DTC114ESA-TP	
IC421	8-759-823-94	IC LB1836M					


The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
Q412	8-729-927-12	TRANSISTOR 2SC4115SQR		R210	1-249-419-11	CARBON 1.5K 5% 1/4W F	
Q413	8-729-029-67	TRANSISTOR DTC114ESA-TP		R211	1-249-441-11	CARBON 100K 5% 1/4W	
Q414	8-729-927-11	TRANSISTOR 2SA1585SQR		R212	1-247-807-31	CARBON 100 5% 1/4W	
Q441	8-729-801-93	TRANSISTOR 2SD1387		R213	1-249-409-11	CARBON 220 5% 1/4W F	
Q451	8-729-141-83	TRANSISTOR 2SB1094-LK		R214	1-249-407-11	CARBON 150 5% 1/4W F	
Q452	8-729-620-05	TRANSISTOR 2SC2603-EF		R221	1-249-441-11	CARBON 100K 5% 1/4W	
Q453	8-729-927-11	TRANSISTOR 2SA1585SQR		R222	1-249-425-11	CARBON 4.7K 5% 1/4W F	
Q454	8-729-927-12	TRANSISTOR 2SC4115SQR		R251	1-259-440-11	CARBON 3.3K 1% 1/6W	
Q455	8-729-927-11	TRANSISTOR 2SA1585SQR		R252	1-259-440-11	CARBON 3.3K 1% 1/6W	
Q456	8-729-927-12	TRANSISTOR 2SC4115SQR		R253	1-259-440-11	CARBON 3.3K 1% 1/6W	
Q457	8-729-620-05	TRANSISTOR 2SC2603-EF		R254	1-259-440-11	CARBON 3.3K 1% 1/6W	
Q458	8-729-119-76	TRANSISTOR 2SA1175-HFE		R255	1-259-436-11	CARBON 2.2K 1% 1/6W	
Q459	8-729-620-05	TRANSISTOR 2SC2603-EF		R256	1-259-436-11	CARBON 2.2K 1% 1/6W	
Q481	8-729-801-93	TRANSISTOR 2SD1387		R257	1-259-444-11	CARBON 4.7K 1% 1/6W	
Q503	8-729-620-05	TRANSISTOR 2SC2603-EF		R258	1-259-444-11	CARBON 4.7K 1% 1/6W	
Q504	8-729-620-05	TRANSISTOR 2SC2603-EF		R259	1-249-419-11	CARBON 1.5K 5% 1/4W F	
Q505	8-729-620-05	TRANSISTOR 2SC2603-EF		R260	1-249-419-11	CARBON 1.5K 5% 1/4W F	
Q601	8-729-029-67	TRANSISTOR DTC114ESA-TP		R261	1-249-441-11	CARBON 100K 5% 1/4W	
Q651	8-729-029-21	TRANSISTOR DTA114ESA-TP		R262	1-247-807-31	CARBON 100 5% 1/4W	
Q654	8-729-029-67	TRANSISTOR DTC114ESA-TP		R263	1-249-409-11	CARBON 220 5% 1/4W F	
Q902	8-729-140-97	TRANSISTOR 2SB734-34		R264	1-249-407-11	CARBON 150 5% 1/4W F	
Q903	8-729-119-76	TRANSISTOR 2SA1175-HFE		R272	1-249-425-11	CARBON 4.7K 5% 1/4W F	
Q911	8-729-141-83	TRANSISTOR 2SB1094-LK		R303	1-249-437-11	CARBON 47K 5% 1/4W	
Q921	8-729-209-15	TRANSISTOR 2SD2012		R305	1-249-429-11	CARBON 10K 5% 1/4W	
< RESISTOR >				R306	1-249-429-11	CARBON 10K 5% 1/4W	
R102	1-249-441-11	CARBON 100K 5% 1/4W		R307	1-249-409-11	CARBON 220 5% 1/4W F	
R103	1-249-433-11	CARBON 22K 5% 1/4W		R308	1-249-429-11	CARBON 10K 5% 1/4W	
R104	1-247-887-00	CARBON 220K 5% 1/4W		R310	1-249-409-11	CARBON 220 5% 1/4W F	
R105	1-249-425-11	CARBON 4.7K 5% 1/4W F		R321	1-249-433-11	CARBON 22K 5% 1/4W	
R106	1-249-425-11	CARBON 4.7K 5% 1/4W F		R322	1-249-437-11	CARBON 47K 5% 1/4W	
R107	1-249-401-11	CARBON 47 5% 1/4W F		R323	1-249-413-11	CARBON 470 5% 1/4W F	
R108	1-249-401-11	CARBON 47 5% 1/4W F		R329	1-249-428-11	CARBON 8.2K 5% 1/4W F	
R1519	1-249-421-11	CARBON 2.2K 5% 1/4W F		R330	1-249-409-11	CARBON 220 5% 1/4W F	
R152	1-249-441-11	CARBON 100K 5% 1/4W		R332	1-249-437-11	CARBON 47K 5% 1/4W	
R153	1-249-433-11	CARBON 22K 5% 1/4W		R333	1-249-417-11	CARBON 1K 5% 1/4W F	
R154	1-247-887-00	CARBON 220K 5% 1/4W		R335	1-247-807-31	CARBON 100 5% 1/4W	
R155	1-249-425-11	CARBON 4.7K 5% 1/4W F		R336	1-249-431-11	CARBON 15K 5% 1/4W	
R156	1-249-425-11	CARBON 4.7K 5% 1/4W F		R337	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R157	1-249-401-11	CARBON 47 5% 1/4W F		R338	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R158	1-249-401-11	CARBON 47 5% 1/4W F		R339	1-249-435-11	CARBON 33K 5% 1/4W	
R201	1-259-440-11	CARBON 3.3K 1% 1/6W		R340	1-249-429-11	CARBON 10K 5% 1/4W	
R202	1-259-440-11	CARBON 3.3K 1% 1/6W		R341	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R203	1-259-440-11	CARBON 3.3K 1% 1/6W		R342	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R204	1-259-440-11	CARBON 3.3K 1% 1/6W		R343	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R205	1-259-436-11	CARBON 2.2K 1% 1/6W		R344	1-249-437-11	CARBON 47K 5% 1/4W	
R206	1-259-436-11	CARBON 2.2K 1% 1/6W		R345	1-249-413-11	CARBON 470 5% 1/4W F	
R207	1-259-444-11	CARBON 4.7K 1% 1/6W		R351	1-249-441-11	CARBON 100K 5% 1/4W	
R208	1-259-444-11	CARBON 4.7K 1% 1/6W		R352	1-249-441-11	CARBON 100K 5% 1/4W	
R209	1-249-419-11	CARBON 1.5K 5% 1/4W F		R353	1-249-441-11	CARBON 100K 5% 1/4W	
				R354	1-249-441-11	CARBON 100K 5% 1/4W	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R355	1-249-437-11	CARBON	47K 5% 1/4W	R454	1-249-429-11	CARBON	10K 5% 1/4W
R356	1-249-437-11	CARBON	47K 5% 1/4W	R455	1-249-441-11	CARBON	100K 5% 1/4W
R357	1-249-429-11	CARBON	10K 5% 1/4W	R456	1-249-417-11	CARBON	1K 5% 1/4W F
R358	1-249-429-11	CARBON	10K 5% 1/4W	R457	1-249-417-11	CARBON	1K 5% 1/4W F
R359	1-249-429-11	CARBON	10K 5% 1/4W	R458	1-247-807-31	CARBON	100 5% 1/4W
R360	1-249-429-11	CARBON	10K 5% 1/4W	R459	1-247-807-31	CARBON	100 5% 1/4W
R361	1-249-429-11	CARBON	10K 5% 1/4W	R461	1-247-807-31	CARBON	100 5% 1/4W
R362	1-249-413-11	CARBON	470 5% 1/4W F	R462	1-249-417-11	CARBON	1K 5% 1/4W F
R363	1-249-429-11	CARBON	10K 5% 1/4W	R463	1-249-417-11	CARBON	1K 5% 1/4W F
R364	1-249-429-11	CARBON	10K 5% 1/4W	R464	1-247-807-31	CARBON	100 5% 1/4W
R365	1-249-429-11	CARBON	10K 5% 1/4W	R465	1-249-417-11	CARBON	1K 5% 1/4W F
R366	1-249-429-11	CARBON	10K 5% 1/4W	R466	1-249-441-11	CARBON	100K 5% 1/4W
R368	1-249-435-11	CARBON	33K 5% 1/4W	R471	1-249-441-11	CARBON	100K 5% 1/4W
R369	1-249-435-11	CARBON	33K 5% 1/4W	R472	1-249-441-11	CARBON	100K 5% 1/4W
R370	1-249-437-11	CARBON	47K 5% 1/4W	R481	1-249-441-11	CARBON	100K 5% 1/4W
R371	1-249-441-11	CARBON	100K 5% 1/4W	R482	1-249-401-11	CARBON	47 5% 1/4W F
R373	1-249-417-11	CARBON	1K 5% 1/4W F	R483	1-249-437-11	CARBON	47K 5% 1/4W
R374	1-249-429-11	CARBON	10K 5% 1/4W	R484	1-249-437-11	CARBON	47K 5% 1/4W
R375	1-249-429-11	CARBON	10K 5% 1/4W	R485	1-249-441-11	CARBON	100K 5% 1/4W
R376	1-249-429-11	CARBON	10K 5% 1/4W	R491	1-249-417-11	CARBON	1K 5% 1/4W F
R377	1-249-429-11	CARBON	10K 5% 1/4W	R492	1-249-417-11	CARBON	1K 5% 1/4W F
R378	1-249-407-11	CARBON	150 5% 1/4W F	R493	1-249-407-11	CARBON	150 5% 1/4W F
R379	1-249-417-11	CARBON	1K 5% 1/4W F	R494	1-247-807-31	CARBON	100 5% 1/4W
R380	1-249-437-11	CARBON	47K 5% 1/4W	R501	1-249-417-11	CARBON	1K 5% 1/4W F
R381	1-249-409-11	CARBON	220 5% 1/4W F	R502	1-249-429-11	CARBON	10K 5% 1/4W
R382	1-249-411-11	CARBON	330 5% 1/4W	R503	1-249-441-11	CARBON	100K 5% 1/4W
R383	1-249-411-11	CARBON	330 5% 1/4W	R516	1-249-429-11	CARBON	10K 5% 1/4W
R391	1-249-437-11	CARBON	47K 5% 1/4W	R517	1-249-417-11	CARBON	1K 5% 1/4W F
R411	1-249-429-11	CARBON	10K 5% 1/4W	R518	1-249-401-11	CARBON	47 5% 1/4W F
R412	1-249-415-11	CARBON	680 5% 1/4W F	R525	1-247-807-31	CARBON	100 5% 1/4W
R413	1-249-415-11	CARBON	680 5% 1/4W F	R526	1-249-429-11	CARBON	10K 5% 1/4W
△R414	1-217-639-00	FUSIBLE	2.2 5% 1/4W F	R527	1-249-429-11	CARBON	10K 5% 1/4W
R415	1-249-415-11	CARBON	680 5% 1/4W F	R528	1-247-903-00	CARBON	1M 5% 1/4W
R416	1-249-415-11	CARBON	680 5% 1/4W F	R601	1-249-413-11	CARBON	470 5% 1/4W F
R431	1-247-887-00	CARBON	220K 5% 1/4W	R603	1-249-437-11	CARBON	47K 5% 1/4W
R432	1-247-887-00	CARBON	220K 5% 1/4W	R604	1-249-413-11	CARBON	470 5% 1/4W F
R433	1-247-887-00	CARBON	220K 5% 1/4W	R661	1-247-903-00	CARBON	1M 5% 1/4W
R434	1-249-441-11	CARBON	100K 5% 1/4W	△R902	1-212-873-11	FUSIBLE	47 5% 1/4W F
R441	1-249-429-11	CARBON	10K 5% 1/4W	R903	1-260-111-11	CARBON	10K 5% 1/2W
R442	1-249-429-11	CARBON	10K 5% 1/4W	R904	1-249-433-11	CARBON	22K 5% 1/4W
R443	1-249-429-11	CARBON	10K 5% 1/4W	R905	1-249-425-11	CARBON	4.7K 5% 1/4W F
R444	1-249-429-11	CARBON	10K 5% 1/4W	R906	1-249-433-11	CARBON	22K 5% 1/4W
R445	1-249-433-11	CARBON	22K 5% 1/4W	R907	1-249-437-11	CARBON	47K 5% 1/4W
R446	1-249-401-11	CARBON	47 5% 1/4W F	R911	1-247-807-31	CARBON	100 5% 1/4W
R447	1-249-441-11	CARBON	100K 5% 1/4W	R912	1-247-807-31	CARBON	100 5% 1/4W
R449	1-249-441-11	CARBON	100K 5% 1/4W	R913	1-249-401-11	CARBON	47 5% 1/4W F
R450	1-249-417-11	CARBON	1K 5% 1/4W F	R914	1-249-409-11	CARBON	220 5% 1/4W F
R451	1-249-441-11	CARBON	100K 5% 1/4W	R915	1-249-433-11	CARBON	22K 5% 1/4W
R452	1-249-417-11	CARBON	1K 5% 1/4W F	R917	1-249-431-11	CARBON	15K 5% 1/4W
R453	1-249-429-11	CARBON	10K 5% 1/4W	R918	1-249-425-11	CARBON	4.7K 5% 1/4W F

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MAIN

PRIMARY

REC VOL

REEL MOTOR

REMOCON

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R923	1-249-401-11	CARBON	47	5%	1/4W F	*	1-661-400-11	REC VOL BOARD *****			
R924	1-249-409-11	CARBON	220	5%	1/4W F			< CONNECTOR >			
R927	1-249-431-11	CARBON	15K	5%	1/4W						
△R931	1-219-123-91	FUSIBLE	0.47	5%	1/4W F	* CN602	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
R981	1-249-411-11	CARBON	330	5%	1/4W F			< RESISTOR >			
R982	1-249-409-11	CARBON	220	5%	1/4W F						
R983	1-249-409-11	CARBON	220	5%	1/4W F	R101	1-249-434-11	CARBON 27K 5% 1/4W			
R984	1-249-413-11	CARBON	470	5%	1/4W F	R151	1-249-434-11	CARBON 27K 5% 1/4W			
R985	1-249-409-11	CARBON	220	5%	1/4W F			< VARIABLE RESISTOR >			
R986	1-249-417-11	CARBON	1K	5%	1/4W F	RV101	1-241-937-11	RES, VAR, CARBON 20K/20K (REC LEVEL)			
R991	1-249-429-11	CARBON	10K	5%	1/4W	*****					
R992	1-249-427-11	CARBON	6.8K	5%	1/4W F	*	1-639-304-14	REEL MOTOR BOARD *****			
R998	1-249-409-11	CARBON	220	5%	1/4W F			< CAPACITOR >			
R999	1-247-739-11	CARBON	100	5%	1/2W F	C07	1-163-077-00	CERAMIC CHIP 0.1uF 10% 25V			
		< VARIABLE RESISTOR >						< MOTOR >			
RV451	1-241-765-11	RES, ADJ, CARBON 22K				M905	X-3363-110-1	MOTOR (REEL) ASSY			
		< RELAY >				*****					
RY651	1-515-803-11	RELAY				*	1-661-399-11	REMOCON BOARD *****			
		< VIBRATOR >						< CAPACITOR >			
X301	1-567-816-11	VIBRATOR, CRYSTAL (18MHz)				C891	1-164-096-11	CERAMIC 0.01uF 50V			
X302	1-567-815-11	VIBRATOR, CRYSTAL (22MHz)						< IC >			
X303	1-567-814-11	VIBRATOR, CRYSTAL (24MHz)				IC891	8-741-810-59	IC SBX1810-59			
*****								< RESISTOR >			
*	1-661-401-11	PRIMARY BOARD *****				R822	1-249-415-11	CARBON 680 5% 1/4W F			
		< CAPACITOR >				R823	1-249-417-11	CARBON 1K 5% 1/4W F			
△C001	1-113-916-11	CERAMIC 0.01uF 20% 250V				R824	1-249-419-11	CARBON 1.5K 5% 1/4W F			
△C002	1-113-916-11	CERAMIC 0.01uF 20% 250V				R825	1-249-423-11	CARBON 3.3K 5% 1/4W F			
△C003	1-113-920-11	ELECT 0.0022uF 20% 250V				R826	1-249-425-11	CARBON 4.7K 5% 1/4W F			
△C004	1-113-920-11	ELECT 0.0022uF 20% 250V									
△C005	1-113-920-11	ELECT 0.0022uF 20% 250V				R827	1-249-429-11	CARBON 10K 5% 1/4W			
		< CONNECTOR >				R828	1-249-435-11	CARBON 33K 5% 1/4W			
CN001	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P				R837	1-249-433-11	CARBON 22K 5% 1/4W			
CN002	1-580-230-51	PIN, CONNECTOR (PC BOARD) 2P				R838	1-249-435-11	CARBON 33K 5% 1/4W			
CN003	1-564-321-00	PIN, CONNECTOR 2P				R852	1-249-439-11	CARBON 68K 5% 1/4W			
		< FILTER >						< SWITCH >			
△L001	1-424-485-11	FILTER, LINE				S821	1-554-937-11	SWITCH, KEY BOARD (START ID AUTO)			
		< GROUND >				S822	1-554-937-11	SWITCH, KEY BOARD (START ID RENUMBER)			
* LUG001	3-346-266-12	PLATE, GROUND				*****					

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Ref. No.	Part No.	Description	Remark
S823	1-554-937-11	SWITCH, KEY BOARD (START ID REHEARSAL)	
S824	1-554-937-11	SWITCH, KEY BOARD (WRITE)	
S825	1-554-937-11	SWITCH, KEY BOARD (ERASE)	
S826	1-554-937-11	SWITCH, KEY BOARD (MARGIN RESET)	
S827	1-572-268-11	SWITCH, SLIDE (REC MODE)	
S831	1-554-937-11	SWITCH, KEY BOARD (OPEN/CLOSE ▲)	
S837	1-572-268-11	SWITCH, SLIDE (INPUT)	
S851	1-572-269-11	SWITCH, SLIDE (SBM)	

* A-2006-455-A RF AMP BOARD, COMPLETE

< CAPACITOR >

C1	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C2	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C3	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C4	1-107-682-11	CERAMIC CHIP	1uF	10%	16V
C5	1-164-299-11	CERAMIC CHIP	0.22uF	10%	25V
C6	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C7	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C8	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C9	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C10	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C11	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C12	1-164-299-11	CERAMIC CHIP	0.22uF	10%	25V
C13	1-107-682-11	CERAMIC CHIP	1uF	10%	16V
C14	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C15	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C16	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C17	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C18	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C19	1-163-038-91	CERAMIC CHIP	220PF	10%	50V
C20	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C21	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C22	1-126-603-11	ELECT CHIP	4.7uF	20%	35V
C23	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C24	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C25	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C26	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C27	1-107-682-11	CERAMIC CHIP	1uF	10%	16V
C28	1-164-505-11	CERAMIC CHIP	2.2uF		16V

< CONNECTOR >

* CN51	1-566-207-11	PIN, CONNECTOR (PC BOARD) 14P
* CN52	1-564-720-11	PIN, CONNECTOR (SMALL TYPE) 4P

< IC >

IC1	8-752-039-01	IC CXA1364R
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Ref. No.	Part No.	Description	Remark
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< COIL >

L1	1-408-781-00	INDUCTOR CHIP	22uH
L2	1-408-789-21	INDUCTOR CHIP	100uH
L3	1-408-781-00	INDUCTOR CHIP	22uH

< RESISTOR >

R1	1-216-082-00	METAL GLAZE	24K	5%	1/10W
R2	1-216-082-00	METAL GLAZE	24K	5%	1/10W
R3	1-216-066-00	METAL CHIP	5.1K	5%	1/10W
R4	1-216-066-00	METAL CHIP	5.1K	5%	1/10W
R5	1-216-077-00	METAL CHIP	15K	5%	1/10W
R6	1-216-077-00	METAL CHIP	15K	5%	1/10W
R7	1-216-077-00	METAL CHIP	15K	5%	1/10W
R8	1-216-079-00	METAL CHIP	18K	5%	1/10W
R9	1-216-075-00	METAL CHIP	12K	5%	1/10W
R10	1-216-079-00	METAL CHIP	18K	5%	1/10W
R11	1-216-077-00	METAL CHIP	15K	5%	1/10W
R12	1-216-077-00	METAL CHIP	15K	5%	1/10W
R13	1-216-077-00	METAL CHIP	15K	5%	1/10W
R14	1-216-081-00	METAL CHIP	22K	5%	1/10W
R15	1-216-085-00	METAL CHIP	33K	5%	1/10W
R16	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R17	1-216-080-00	METAL CHIP	20K	5%	1/10W
R18	1-216-073-00	METAL CHIP	10K	5%	1/10W

< VARIABLE RESISTOR >

RV1	1-238-181-11	RES, ADJ, CERMET 4.7K
RV2	1-238-181-11	RES, ADJ, CERMET 4.7K

* 1-639-301-11 RGN SW BOARD

< SWITCH >

S01	1-571-878-11	SWITCH, PUSH (2 KEY) (CASSETTE-IN, REC PROOF)
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* 1-656-335-11 SBM DF BOARD

< CAPACITOR >

C631	1-162-294-31	CERAMIC	0.001uF	10%	50V
C632	1-162-282-31	CERAMIC	100PF	10%	50V
C633	1-164-159-11	CERAMIC	0.1uF		50V
C634	1-164-159-11	CERAMIC	0.1uF		50V

< CONNECTOR >

CN692	1-573-109-11	PIN, CONNECTOR 15P
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SBM DF

SW COVER

TOP END SENSOR

Ref. No.	Part No.	Description	Remark
		< IC >	
IC607	8-759-196-21	IC CXD8482Q	
		< RESISTOR >	
R631	1-249-413-11	CARBON 470 5% 1/4W	

*	1-661-404-11	SW COVER BOARD	

*	1-639-305-11	TOP END SENSOR BOARD	

*	3-368-456-01	HOLDER (END SENSOR LIGHT)	
*	3-368-457-01	HOLDER (END SENSOR) (RECEIVE)	
		< DIODE >	
D01	8-719-988-42	DIODE GL453S	
		< PHOTO INTERRUPTER >	
PH03	8-729-907-25	PHOTO TRANSISTOR PT4850F (TAKE-UP)	
PH04	8-729-907-25	PHOTO TRANSISTOR PT4850F (SUPPLY)	

		MISCELLANEOUS	

△2	1-251-234-11	INLET, AC (~AC IN)	
70	1-775-464-11	WIRE (FLAT TYPE) (17 CORE)	
106	1-775-389-11	WIRE (FLAT TYPE) (31 CORE)	
* 111	1-533-213-31	HOLDER, FUSE	
325	8-848-567-11	DRUM ASSY DOU-03A	
FL801	1-517-382-11	INDICATOR TUBE, FLUORESCENT	
△F901	1-532-464-51	TIME-LAG FUSE (2.5A/250V) (AEP, UK)	
△F901	1-576-105-11	FUSE (2.5A/250V) (US, CND)	
J601	1-770-904-11	JACK (LARGE TYPE) (PHONES)	
* LUG001	3-346-266-12	PLATE, GROUND	
* LUG501	4-916-318-01	PLATE, GROUND	
M901	X-3370-655-1	MOTOR ASSY (CASSETTE COMPARTMENT)	
M902	8-835-361-01	MOTOR, DC U-17B (CAPSTAN)	
M903	X-3363-109-1	MOTOR (CAM) ASSY	
M905	X-3363-110-1	MOTOR (REEL) ASSY	
PM902	1-454-536-11	SOLENOID, PLUNGER (LOADING)	
PM903	1-454-732-11	SOLENOID, PLUNGER (REEL MOTOR CONTROL)	
RV101	1-241-937-11	RES, VAR, CARBON 20K/20K (REC LEVEL)	
RV651	1-223-620-11	RES, VAR, CARBON 20K/20K (PHONE LEVEL)	
△S001	1-572-267-51	SWITCH, PUSH (AC POWER) (1 KEY) (POWER)	
△T901	1-427-889-11	TRANSFORMER, POWER (US, CND)	
△T901	1-427-890-11	TRANSFORMER, POWER (AEP, UK)	

Ref. No.	Part No.	Description	Remark

		ACCESSORIES & PACKING MATERIALS	

	1-473-088-11	REMOTE COMMANDER (RM-D9)	
△	1-551-812-11	CORD, POWER (US, CND)	
	1-558-271-11	CORD, CONNECTION (AUDIO 108cm)	
△	1-590-910-11	CORD SET, POWER (AEP, UK)	
	2-297-913-00	WASHER (DIA. 5), ORNAMENTAL	
*	3-384-415-01	CUSHION	
	3-856-761-11	MANUAL, INSTRUCTION	
		(ENGLISH, FRENCH, GERMAN)	
	3-920-800-01	RACK (L/R)	
*	3-925-043-01	PLATE, ORNAMENTAL	
*	3-937-206-01	INDIVIDUAL CARTON	
	4-962-615-01	COVER, BATTERY (for RM-D9)	
	7-682-276-04	SCREW +RK 5X12	

		HARDWARE LIST	

#1	7-682-548-09	SCREW +B 3X8	
#2	7-685-645-79	SCREW +BVTP 3X6 TYPE2 IT-3	
#3	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
#4	7-685-871-01	SCREW +BVTT 3X6 (S)	
#5	7-621-772-20	SCREW +B 2X5	
#6	7-627-854-07	PRECISION SCREW +P 2X2.5 TYPE3	
#7	7-685-102-19	SCREW +P 2X4 TYPE2 NON-SLIT	
#8	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
#9	7-627-450-28	+K 1.7X2	
#10	7-627-852-27	+P 1.7X3	
#11	7-621-772-00	SCREW +B 2X3	
#12	7-621-255-15	SCREW +P 2X3	
#13	7-621-773-86	SCREW +B 2.6X4	
#14	7-627-556-17	SCREW, PRECISION +P 2.6X3 TYPE1	
#15	7-627-552-27	SCREW, PRECISION +P 1.7X2	
#16	7-621-772-18	SCREW +B 2X4	
#17	7-627-552-47	SCREW, PRECISION +P 1.7X4	
#18	7-621-255-20	SCREW +BVTT 2X4 (S)	
#19	7-682-548-04	SCREW +BVTT 3X8 (S)	
#20	7-685-133-19	SCREW +BTP 2.6X6 TYPE2 N-S	
#21	7-621-772-08	SCREW +B 2X3	
#22	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#23	7-685-660-29	SCREW +BVTP 4X10 TYPE2 SLIT	
#24	7-685-872-09	SCREW +BVTT 3X8 (S)	
#25	7-682-660-09	SCREW +PS 4X6	

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

SONY

SERVICE MANUAL

*US Model
Canadian Model
AEP Model
UK Model*

SUPPLEMENT-1

File this supplement with the service manual.

Subject: Changed pattern and circuit of the MAIN board

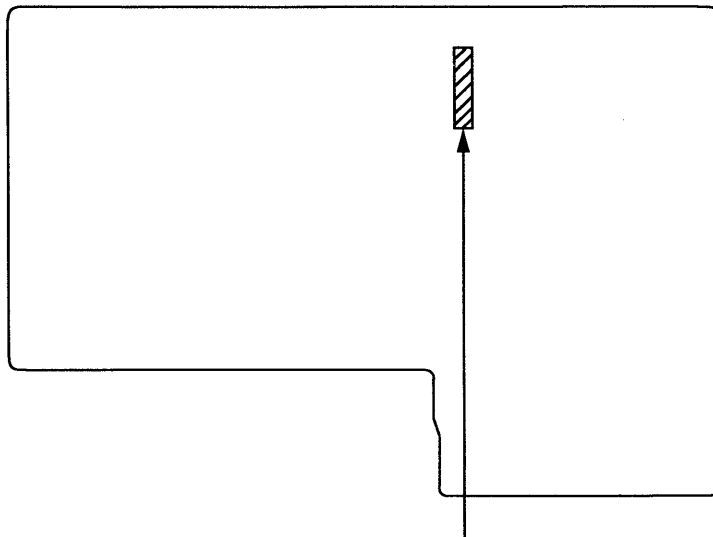
(ECN-TC600575/TC700005/TC700022)

- In this set, the pattern and circuit of MAIN board were changed during the production (for serial No., see the following table).
For the schematic diagram, printed wiring boards, and electrical parts list of the MAIN board, see this service manual supplement-1.

Model	Serial Number
US, Canadian models	After 803701
AEP, UK models	After 501901

• New type discrimination

[MAIN BOARD] (COMPONENT SIDE)



Former type : 1-656-336-21
New type : 1-656-336-22

MAIN

SECTION 1 ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA. . . : μ A. . . uPA. . . : μ PA. . .
uPB. . . : μ PB. . . uPC. . . : μ PC. . .
uPD. . . : μ PD. . .
- CAPACITORS
uF: μ F
- COILS
uH: μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-2007-577-A	MAIN BOARD, COMPLETE (US, Canadian)		C307	1-164-159-11	CERAMIC 0.1uF 50V	
*	A-2007-587-A	MAIN BOARD, COMPLETE (AEP, UK)		C308	1-162-294-31	CERAMIC 0.001uF 10% 50V	
		*****		C309	1-124-443-00	ELECT 100uF 20% 10V	
*	1-533-213-31	HOLDER, FUSE		C310	1-164-159-11	CERAMIC 0.1uF 50V	
*	3-309-144-21	HEAT SINK		C311	1-162-198-31	CERAMIC 8.2PF 10% 50V	
*	4-363-146-71	HEAT SINK, V.OUT		C312	1-162-199-31	CERAMIC 10PF 5% 50V	
	7-682-548-09	SCREW +B 3X8		C313	1-162-197-31	CERAMIC 6.8PF 10% 50V	
	7-685-871-01	SCREW +BVTT 3X6 (S)		C314	1-162-197-31	CERAMIC 6.8PF 10% 50V	
		< CAPACITOR >		C327	1-162-198-31	CERAMIC 8.2PF 10% 50V	
C101	1-104-664-11	ELECT 47uF 20% 25V		C332	1-164-159-11	CERAMIC 0.1uF 50V	
C102	1-162-286-31	CERAMIC 220PF 10% 50V		C333	1-162-211-31	CERAMIC 33PF 5% 50V	
C103	1-104-664-11	ELECT 47uF 20% 25V		C334	1-124-907-11	ELECT 10uF 20% 50V	
C107	1-130-481-00	MYLAR 0.0068uF 5% 50V		C335	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C151	1-104-664-11	ELECT 47uF 20% 25V		C336	1-164-159-11	CERAMIC 0.1uF 50V	
C152	1-162-286-31	CERAMIC 220PF 10% 50V		C337	1-164-159-11	CERAMIC 0.1uF 50V	
C153	1-104-664-11	ELECT 47uF 20% 25V		C338	1-164-159-11	CERAMIC 0.1uF 50V	
C157	1-130-481-00	MYLAR 0.0068uF 5% 50V		C340	1-164-159-11	CERAMIC 0.1uF 50V	
C201	1-130-471-00	MYLAR 0.001uF 5% 50V		C341	1-164-159-11	CERAMIC 0.1uF 50V	
C202	1-110-341-11	MYLAR 330PF 5% 50V		C342	1-124-442-00	ELECT 330uF 20% 6.3V	
C203	1-110-341-11	MYLAR 330PF 5% 50V		C343	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C204	1-130-471-00	MYLAR 0.001uF 5% 50V		C344	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C205	1-130-479-00	MYLAR 0.0047uF 5% 50V		C345	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C206	1-124-443-00	ELECT 100uF 20% 10V		C351	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C207	1-162-302-11	CERAMIC 0.0022uF 30% 16V		C352	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C251	1-130-471-00	MYLAR 0.001uF 5% 50V		C353	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C252	1-110-341-11	MYLAR 330PF 5% 50V		C354	1-164-159-11	CERAMIC 0.1uF 50V	
C253	1-110-341-11	MYLAR 330PF 5% 50V		C355	1-164-159-11	CERAMIC 0.1uF 50V	
C254	1-130-471-00	MYLAR 0.001uF 5% 50V		C356	1-164-159-11	CERAMIC 0.1uF 50V	
C255	1-130-479-00	MYLAR 0.0047uF 5% 50V		C361	1-162-302-11	CERAMIC 0.0022uF 30% 16V	
C256	1-124-443-00	ELECT 100uF 20% 10V		C362	1-162-302-11	CERAMIC 0.0022uF 30% 16V	
C257	1-162-302-11	CERAMIC 0.0022uF 30% 16V		C431	1-162-302-11	CERAMIC 0.0022uF 30% 16V	
C302	1-162-197-31	CERAMIC 6.8PF 10% 50V		C432	1-162-305-11	CERAMIC 0.0068uF 30% 16V	
C304	1-124-903-11	ELECT 1uF 20% 50V		C433	1-162-288-31	CERAMIC 330PF 10% 50V	
				C439	1-162-306-11	CERAMIC 0.01uF 20% 16V	

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C441	1-162-306-11	CERAMIC	0.01uF	20%	16V	C672	1-136-165-00	FILM	0.1uF	5%	50V
C442	1-161-494-00	CERAMIC	0.022uF		25V	C673	1-124-443-00	ELECT	100uF	20%	10V
C443	1-162-301-11	CERAMIC	0.0015uF	20%	16V	C674	1-136-165-00	FILM	0.1uF	5%	50V
C444	1-124-907-11	ELECT	10uF	20%	50V	C675	1-136-165-00	FILM	0.1uF	5%	50V
C445	1-162-306-11	CERAMIC	0.01uF	20%	16V	C683	1-136-165-00	FILM	0.1uF	5%	50V
C451	1-162-306-11	CERAMIC	0.01uF	20%	16V	C684	1-126-941-11	ELECT	470uF	20%	6.3V
C452	1-126-963-11	ELECT	4.7uF	20%	50V	C901	1-126-943-11	ELECT	2200uF	20%	25V
C453	1-126-338-11	ELECT	47uF	20%	63V	C902	1-126-939-11	ELECT	10000uF	20%	16V
C454	1-162-306-11	CERAMIC	0.01uF	20%	16V	C903	1-126-941-11	ELECT	470uF	20%	6.3V
C459	1-162-306-11	CERAMIC	0.01uF	20%	16V	C904	1-126-917-11	ELECT	3300uF	20%	6.3V
C471	1-162-306-11	CERAMIC	0.01uF	20%	16V	C905	1-128-553-11	ELECT	220uF	20%	63V
C481	1-162-306-11	CERAMIC	0.01uF	20%	16V	C906	1-124-122-11	ELECT	100uF	20%	50V
C491	1-162-290-31	CERAMIC	470PF	10%	50V	C907	1-162-306-11	CERAMIC	0.01uF	20%	16V
C492	1-162-306-11	CERAMIC	0.01uF	20%	16V	C908	1-162-306-11	CERAMIC	0.01uF	20%	16V
C502	1-162-294-31	CERAMIC	0.001uF	10%	50V	C910	1-124-564-11	ELECT	4700uF	20%	25V
C503	1-162-284-31	CERAMIC	150PF	10%	50V	C911	1-124-902-00	ELECT	0.47uF	20%	50V
C507	1-136-153-00	FILM	0.01uF	5%	50V	C912	1-126-942-61	ELECT	1000uF	20%	16V
C508	1-126-935-11	ELECT	470uF	20%	6.3V	C913	1-162-306-11	CERAMIC	0.01uF	20%	16V
C509	1-164-159-11	CERAMIC	0.1uF		50V	C920	1-124-564-11	ELECT	4700uF	20%	25V
C511	1-164-159-11	CERAMIC	0.1uF		50V	C921	1-162-306-11	CERAMIC	0.01uF	20%	16V
C515	1-136-169-00	FILM	0.22uF	5%	50V	C922	1-126-942-61	ELECT	1000uF	20%	16V
C527	1-164-159-11	CERAMIC	0.1uF		50V	C923	1-162-306-11	CERAMIC	0.01uF	20%	16V
C601	1-136-165-00	FILM	0.1uF	5%	50V	C931	1-126-934-11	ELECT	220uF	20%	16V
C602	1-136-165-00	FILM	0.1uF	5%	50V	C932	1-164-159-11	CERAMIC	0.1uF		50V
C621	1-124-907-11	ELECT	10uF	20%	50V	C933	1-126-925-11	ELECT	470uF	20%	10V
C622	1-124-907-11	ELECT	10uF	20%	50V	C934	1-136-165-00	FILM	0.1uF	5%	50V
C623	1-136-165-00	FILM	0.1uF	5%	50V	C952	1-126-916-11	ELECT	1000uF	20%	6.3V
C624	1-136-165-00	FILM	0.1uF	5%	50V	C953	1-126-935-11	ELECT	470uF	20%	6.3V
C625	1-136-165-00	FILM	0.1uF	5%	50V	C998	1-164-159-11	CERAMIC	0.1uF		50V
C626	1-136-165-00	FILM	0.1uF	5%	50V	C999	1-164-159-11	CERAMIC	0.1uF		50V
C627	1-126-941-11	ELECT	470uF	20%	6.3V	< CONNECTOR >					
C628	1-126-941-11	ELECT	470uF	20%	6.3V	* CN301	1-564-706-31	PIN, CONNECTOR (SMALL TYPE) 4P			
C630	1-124-907-11	ELECT	10uF	20%	50V	* CN302	1-568-845-11	SOCKET, CONNECTOR 31P			
C651	1-136-165-00	FILM	0.1uF	5%	50V	* CN303	1-568-836-11	SOCKET, CONNECTOR 17P			
C652	1-136-165-00	FILM	0.1uF	5%	50V	CN341	1-770-164-11	PIN, CONNECTOR (PC BOARD) 15P			
C653	1-136-165-00	FILM	0.1uF	5%	50V	* CN401	1-564-339-00	PIN, CONNECTOR 5P			
C654	1-136-165-00	FILM	0.1uF	5%	50V	* CN601	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
C661	1-136-165-00	FILM	0.1uF	5%	50V	CN651	1-564-510-11	PLUG (MICRO CONNECTOR) 6P			
C662	1-136-165-00	FILM	0.1uF	5%	50V	CN691	1-573-095-11	SOCKET, CONNECTOR 15P			
C663	1-136-165-00	FILM	0.1uF	5%	50V	CN901	1-691-767-11	PLUG (MICRO CONNECTOR) 5P			
C664	1-136-165-00	FILM	0.1uF	5%	50V	CN902	1-691-768-11	PLUG (MICRO CONNECTOR) 6P			
C665	1-136-165-00	FILM	0.1uF	5%	50V	< DIODE >					
C666	1-136-165-00	FILM	0.1uF	5%	50V	D101	8-719-987-63	DIODE 1N4148M			
C667	1-136-165-00	FILM	0.1uF	5%	50V	D102	8-719-987-63	DIODE 1N4148M			
C668	1-124-443-00	ELECT	100uF	20%	10V	D103	8-719-987-63	DIODE 1N4148M			
C669	1-136-165-00	FILM	0.1uF	5%	50V	D104	8-719-987-63	DIODE 1N4148M			
C670	1-126-917-11	ELECT	3300uF	20%	6.3V	D151	8-719-987-63	DIODE 1N4148M			
C671	1-126-917-11	ELECT	3300uF	20%	6.3V						

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D152	8-719-987-63	DIODE 1N4148M		IC602	8-759-602-83	IC M5238P	
D153	8-719-987-63	DIODE 1N4148M		IC603	8-759-330-53	IC CXD8493M-E1	
D154	8-719-987-63	DIODE 1N4148M		IC604	8-759-094-53	IC TA7805S	
D321	8-719-987-63	DIODE 1N4148M		IC605	8-759-094-68	IC TA79005S-LBSONY	
D331	8-719-987-63	DIODE 1N4148M		IC606	8-759-094-53	IC TA7805S	
D333	8-719-987-63	DIODE 1N4148M		IC651	8-759-900-72	IC NE5532P	
D411	8-719-200-82	DIODE 11ES2		IC652	8-759-900-72	IC NE5532P	
D412	8-719-200-82	DIODE 11ES2		IC653	8-759-334-75	IC CXD8505AQ	
D413	8-719-200-82	DIODE 11ES2		IC654	8-759-094-53	IC TA7805S	
D421	8-719-200-82	DIODE 11ES2		IC901	8-759-504-46	IC PQ05RF1	
D422	8-719-200-82	DIODE 11ES2		IC902	8-759-504-46	IC PQ05RF1	
D501	8-719-045-72	DIODE KV1550NT		IC903	8-759-602-66	IC M5230L-A	
D651	8-719-987-63	DIODE 1N4148M		IC904	8-759-390-48	IC uPC2406AHF	
D901	8-719-200-77	DIODE 10E2N		IC999	8-759-426-52	IC AT24C01A-10SC-TP-B	
D902	8-719-200-77	DIODE 10E2N				< IC LINK >	
D903	8-719-200-77	DIODE 10E2N		△ ICP911	1-532-837-21	LINK, IC (630mA/90V) (AEP, UK)	
D904	8-719-200-77	DIODE 10E2N		△ ICP921	1-532-837-21	LINK, IC (630mA/90V) (AEP, UK)	
D905	8-719-312-47	DIODE RBA-406B				< PIN JACK >	
D906	8-719-200-82	DIODE 11ES2					
D907	8-719-987-63	DIODE 1N4148M		* J101	1-569-443-11	JACK, PIN 4P (ANALOG LINE IN/OUT)	
D908	8-719-015-13	DIODE UZP-9.1BC-TP				< COIL >	
D911	8-719-200-77	DIODE 10E2N					
D912	8-719-200-77	DIODE 10E2N		L301	1-408-405-00	INDUCTOR 4.7uH	
D913	8-719-200-77	DIODE 10E2N		L302	1-410-509-11	INDUCTOR 10uH	
D914	8-719-200-77	DIODE 10E2N		L331	1-410-509-11	INDUCTOR 10uH	
		< FUSE >		L341	1-410-515-11	INDUCTOR 33uH	
△ F901	1-532-464-51	TIME-LAG FUSE (T2.5A/250V) (AEP, UK)		L501	1-410-499-41	INDUCTOR 1.5uH	
△ F901	1-576-105-11	FUSE (2.5A/250V) (US, Canadian)					
△ F911	1-532-774-11	FUSE, MICRO (SECONDARY) (630mA/125V) (US, Canadian)		L502	1-410-509-11	INDUCTOR 10uH	
△ F921	1-532-774-11	FUSE, MICRO (SECONDARY) (630mA/125V) (US, Canadian)		L601	1-410-509-11	INDUCTOR 10uH	
		< IC >		L991	1-410-501-11	INDUCTOR 2.2uH	
IC301	8-759-927-72	IC TL1591CP				< GROUND PLATE/GROUND TERMINAL >	
IC302	8-759-701-01	IC NJM2904M		* LUG501	4-916-318-01	PLATE, GROUND	
IC304	8-752-355-55	IC CXD2605Q		LUG502	1-537-770-21	TERMINAL BOARD, GROUND	
IC305	8-752-364-91	IC CXK58257BM-10LL-T6				< TRANSISTOR >	
IC306	8-759-925-90	IC SN74HC74ANS					
IC308	8-759-634-43	IC M51953BFP		Q221	8-729-141-30	TRANSISTOR 2SC3623A-LK	
IC310	8-752-884-88	IC CXP87532-036Q		Q271	8-729-141-30	TRANSISTOR 2SC3623A-LK	
IC331	8-759-242-84	IC TORX176 (OPTICAL IN)		Q321	8-729-900-89	TRANSISTOR DTC144ES	
IC332	8-759-242-85	IC TOTX176 (OPTICAL OUT)		Q322	8-729-900-89	TRANSISTOR DTC144ES	
IC421	8-759-823-94	IC LB1836M		Q340	8-729-620-05	TRANSISTOR 2SC2603-EF	
IC431	8-759-701-01	IC NJM2904M		Q341	8-729-900-89	TRANSISTOR DTC144ES	
IC441	8-759-701-01	IC NJM2904M		Q342	8-729-422-57	TRANSISTOR UN4111	
IC451	8-759-701-01	IC NJM2904M		Q351	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC501	8-759-242-70	IC TC7WU04F		Q411	8-729-900-80	TRANSISTOR DTC114ES	
IC601	8-759-602-83	IC M5238P		Q412	8-729-927-12	TRANSISTOR 2SC4115SQR	
				Q413	8-729-900-80	TRANSISTOR DTC114ES	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

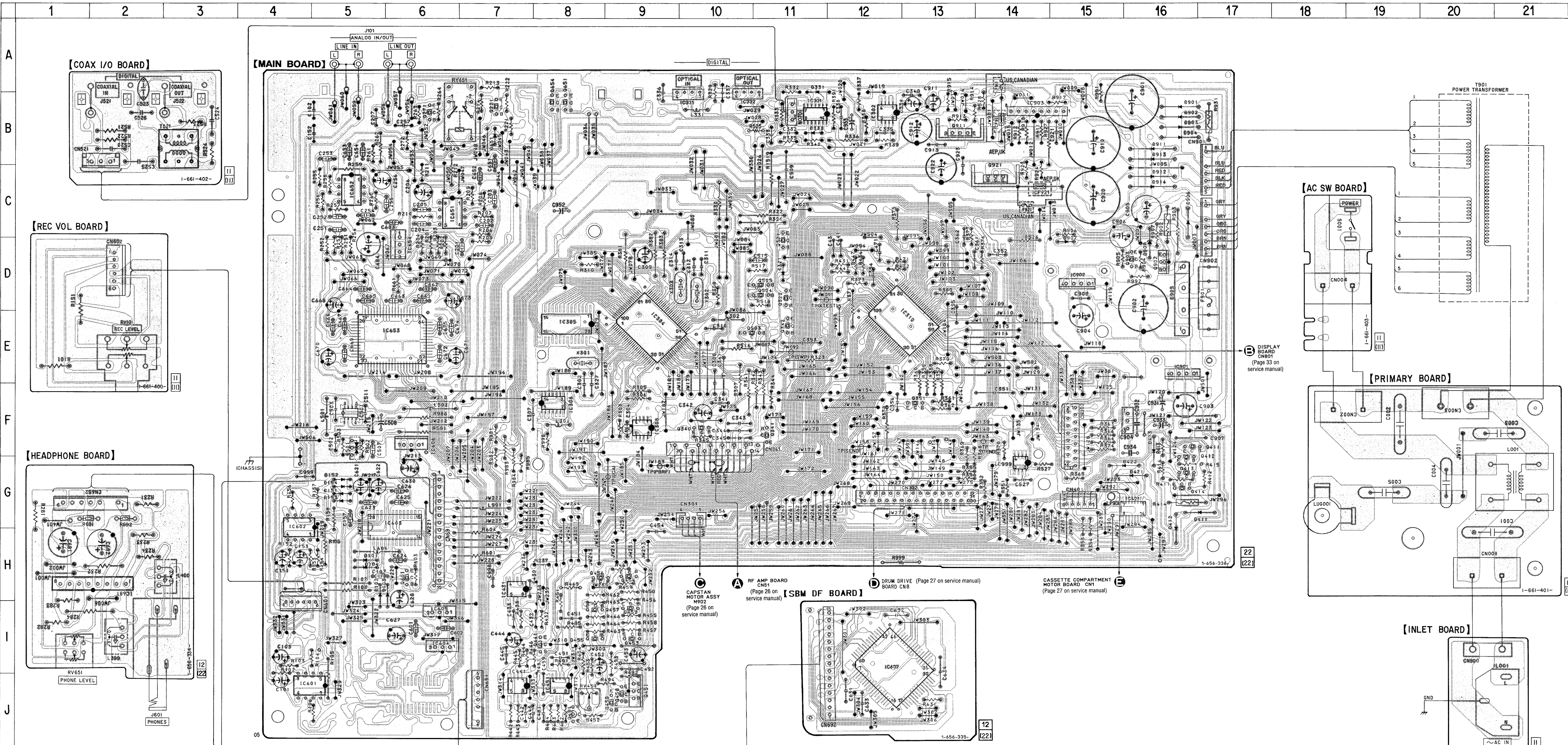
SECTION 2
DIAGRAMS

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D101	H-5	IC604	I-6
D102	H-5	IC605	I-6
D103	H-6	IC606	F-6
D104	H-5	IC607	I-12
D151	G-5	IC651	C-6
D152	G-5	IC652	C-5
D153	G-5	IC653	E-6
D154	G-5	IC654	D-6
D321	D-11	IC681	H-2
D331	B-11	IC901	E-16
D333	B-11	IC902	D-15
D411	G-17	IC903	B-14
D412	H-16	IC904	F-16
D413	F-16	IC999	G-14
D421	G-16		
D422	G-16	Q221	B-7
D501	F-5	Q271	B-6
D651	B-7	Q321	D-11
D901	B-16	Q322	D-11
D902	B-16	Q340	F-10
D903	B-16	Q341	F-11
D904	B-16	Q342	E-11
D905	D-16	Q351	F-13
D906	C-16	Q411	F-16
D907	D-15	Q412	G-16
D908	D-16	Q413	G-16
D911	B-16	Q414	G-16
D912	C-16	Q441	I-8
D913	B-16	Q451	J-9
D914	C-16	Q452	I-9
		Q453	I-9
		Q454	H-9
IC301	B-11	Q455	I-8
IC302	B-12	Q456	H-8
IC304	E-9	Q457	I-8
IC305	E-8	Q458	J-9
IC306	F-8	Q459	J-9
IC308	F-9	Q481	J-8
IC310	E-13	Q503	E-10
IC331	B-10	Q504	D-11
IC332	B-10	Q505	D-11
IC421	G-16	Q601	H-6
IC431	H-7	Q651	B-8
IC441	J-7	Q654	B-8
IC451	J-8	Q902	D-16
IC501	F-5	Q903	D-16
IC601	J-5	Q911	B-13
IC602	G-4	Q921	C-14
IC603	G-6		

Note on Printed Wiring Board:
• — : parts extracted from the component side.
• Δ : internal component.
• : Pattern from the side which enables seeing.

2-1. PRINTED WIRING BOARDS – MAIN Section –



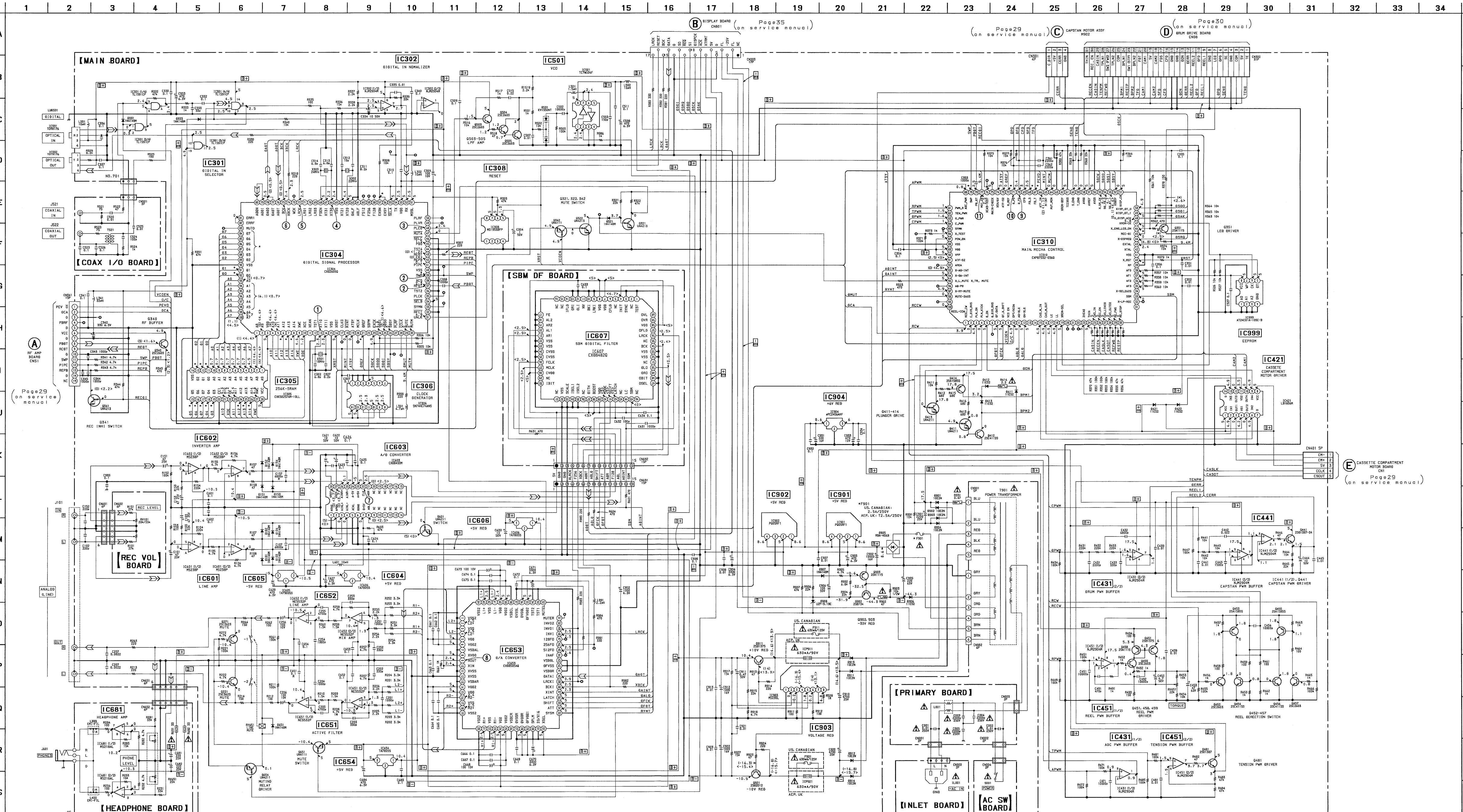
2-2. SCHEMATIC DIAGRAM – MAIN Section –

- Note on Schematic Diagram:**
- All capacitors are in μF unless otherwise noted. pF , μF , 50 WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $1/4\text{ W}$ or less unless otherwise specified.
 - Δ : internal component.
 - $\text{---}\text{---}\text{---}$: fusible resistor.

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- B- : B- Line.
- B- : B- Line.
- B- : panel designation.
- B- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions. no mark : PB/REC
- () : PB
- < : REC
- * : Can not to be measured
- Voltages are taken with a VOM (input impedance $10\text{ M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- $\text{---}\text{---}\text{---}$: PB
- $\text{---}\text{---}\text{---}$: REC



Continued from page 4.

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
Q414	8-729-927-11	TRANSISTOR	2SA1585SQR				R211	1-249-441-11	CARBON	100K	5%	1/4W	
Q441	8-729-801-93	TRANSISTOR	2SD1387				R212	1-247-807-31	CARBON	100	5%	1/4W	
Q451	8-729-141-83	TRANSISTOR	2SB1094-LK				R213	1-249-409-11	CARBON	220	5%	1/4W	
Q452	8-729-620-05	TRANSISTOR	2SC2603-EF				R214	1-249-407-11	CARBON	150	5%	1/4W	
Q453	8-729-927-11	TRANSISTOR	2SA1585SQR				R221	1-249-441-11	CARBON	100K	5%	1/4W	
Q454	8-729-927-12	TRANSISTOR	2SC4115SQR				R222	1-249-425-11	CARBON	4.7K	5%	1/4W	
Q455	8-729-927-11	TRANSISTOR	2SA1585SQR				R251	1-259-440-11	CARBON	3.3K	1%	1/6W	
Q456	8-729-927-12	TRANSISTOR	2SC4115SQR				R252	1-259-440-11	CARBON	3.3K	1%	1/6W	
Q457	8-729-620-05	TRANSISTOR	2SC2603-EF				R253	1-259-440-11	CARBON	3.3K	1%	1/6W	
Q458	8-729-119-76	TRANSISTOR	2SA1175-HFE				R254	1-259-440-11	CARBON	3.3K	1%	1/6W	
Q459	8-729-620-05	TRANSISTOR	2SC2603-EF				R255	1-259-436-11	CARBON	2.2K	1%	1/6W	
Q481	8-729-801-93	TRANSISTOR	2SD1387				R256	1-259-436-11	CARBON	2.2K	1%	1/6W	
Q503	8-729-620-05	TRANSISTOR	2SC2603-EF				R257	1-259-444-11	CARBON	4.7K	1%	1/6W	
Q504	8-729-620-05	TRANSISTOR	2SC2603-EF				R258	1-259-444-11	CARBON	4.7K	1%	1/6W	
Q505	8-729-620-05	TRANSISTOR	2SC2603-EF				R259	1-249-419-11	CARBON	1.5K	5%	1/4W	
Q601	8-729-900-80	TRANSISTOR	DTC114ES				R260	1-249-419-11	CARBON	1.5K	5%	1/4W	
Q651	8-729-422-57	TRANSISTOR	UN4111				R261	1-249-441-11	CARBON	100K	5%	1/4W	
Q654	8-729-900-80	TRANSISTOR	DTC114ES				R262	1-247-807-31	CARBON	100	5%	1/4W	
Q902	8-729-140-97	TRANSISTOR	2SB734-34				R263	1-249-409-11	CARBON	220	5%	1/4W	
Q903	8-729-119-76	TRANSISTOR	2SA1175-HFE				R264	1-249-407-11	CARBON	150	5%	1/4W	
Q911	8-729-141-83	TRANSISTOR	2SB1094-LK				R272	1-249-425-11	CARBON	4.7K	5%	1/4W	
Q921	8-729-209-15	TRANSISTOR	2SD2012				R303	1-249-437-11	CARBON	47K	5%	1/4W	
< RESISTOR >							R305	1-249-429-11	CARBON	10K	5%	1/4W	
R102	1-249-441-11	CARBON	100K	5%	1/4W		R306	1-249-429-11	CARBON	10K	5%	1/4W	
R103	1-249-433-11	CARBON	22K	5%	1/4W		R307	1-249-409-11	CARBON	220	5%	1/4W	
R104	1-247-887-00	CARBON	220K	5%	1/4W		R308	1-249-429-11	CARBON	10K	5%	1/4W	
R105	1-249-425-11	CARBON	4.7K	5%	1/4W		R310	1-249-409-11	CARBON	220	5%	1/4W	
R106	1-249-425-11	CARBON	4.7K	5%	1/4W		R321	1-249-433-11	CARBON	22K	5%	1/4W	
R107	1-249-401-11	CARBON	47	5%	1/4W		R322	1-249-437-11	CARBON	47K	5%	1/4W	
R108	1-249-401-11	CARBON	47	5%	1/4W		R323	1-249-413-11	CARBON	470	5%	1/4W	
R152	1-249-441-11	CARBON	100K	5%	1/4W		R329	1-249-428-11	CARBON	8.2K	5%	1/4W	
R153	1-249-433-11	CARBON	22K	5%	1/4W		R330	1-249-409-11	CARBON	220	5%	1/4W	
R154	1-247-887-00	CARBON	220K	5%	1/4W		R332	1-249-437-11	CARBON	47K	5%	1/4W	
R155	1-249-425-11	CARBON	4.7K	5%	1/4W		R333	1-249-417-11	CARBON	1K	5%	1/4W	
R156	1-249-425-11	CARBON	4.7K	5%	1/4W		R335	1-247-807-31	CARBON	100	5%	1/4W	
R157	1-249-401-11	CARBON	47	5%	1/4W		R336	1-249-431-11	CARBON	15K	5%	1/4W	
R158	1-249-401-11	CARBON	47	5%	1/4W		R337	1-249-421-11	CARBON	2.2K	5%	1/4W	
R201	1-259-440-11	CARBON	3.3K	1%	1/6W		R338	1-249-421-11	CARBON	2.2K	5%	1/4W	
R202	1-259-440-11	CARBON	3.3K	1%	1/6W		R339	1-249-435-11	CARBON	33K	5%	1/4W	
R203	1-259-440-11	CARBON	3.3K	1%	1/6W		R340	1-249-429-11	CARBON	10K	5%	1/4W	
R205	1-259-436-11	CARBON	2.2K	1%	1/6W		R341	1-249-425-11	CARBON	4.7K	5%	1/4W	
R206	1-259-436-11	CARBON	2.2K	1%	1/6W		R342	1-249-425-11	CARBON	4.7K	5%	1/4W	
R207	1-259-444-11	CARBON	4.7K	1%	1/6W		R343	1-249-425-11	CARBON	4.7K	5%	1/4W	
R208	1-259-444-11	CARBON	4.7K	1%	1/6W		R344	1-249-437-11	CARBON	47K	5%	1/4W	
R209	1-249-419-11	CARBON	1.5K	5%	1/4W		R345	1-249-413-11	CARBON	470	5%	1/4W	
R210	1-249-419-11	CARBON	1.5K	5%	1/4W		R351	1-249-441-11	CARBON	100K	5%	1/4W	
							R352	1-249-441-11	CARBON	100K	5%	1/4W	

MAIN

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
R353	1-249-441-11	CARBON	100K	5%	1/4W		R451	1-249-441-11	CARBON	100K	5%	1/4W	
R354	1-249-441-11	CARBON	100K	5%	1/4W		R452	1-249-417-11	CARBON	1K	5%	1/4W	
R355	1-249-437-11	CARBON	47K	5%	1/4W		R453	1-249-429-11	CARBON	10K	5%	1/4W	
R356	1-249-437-11	CARBON	47K	5%	1/4W		R454	1-249-429-11	CARBON	10K	5%	1/4W	
							R455	1-249-441-11	CARBON	100K	5%	1/4W	
R357	1-249-429-11	CARBON	10K	5%	1/4W								
R358	1-249-429-11	CARBON	10K	5%	1/4W		R456	1-249-417-11	CARBON	1K	5%	1/4W	
R359	1-249-429-11	CARBON	10K	5%	1/4W		R457	1-249-417-11	CARBON	1K	5%	1/4W	
R360	1-249-429-11	CARBON	10K	5%	1/4W		R458	1-247-807-31	CARBON	100	5%	1/4W	
R361	1-249-429-11	CARBON	10K	5%	1/4W		R459	1-247-807-31	CARBON	100	5%	1/4W	
							R461	1-247-807-31	CARBON	100	5%	1/4W	
R362	1-249-413-11	CARBON	470	5%	1/4W								
R363	1-249-429-11	CARBON	10K	5%	1/4W		R462	1-249-417-11	CARBON	1K	5%	1/4W	
R364	1-249-429-11	CARBON	10K	5%	1/4W		R463	1-249-417-11	CARBON	1K	5%	1/4W	
R365	1-249-429-11	CARBON	10K	5%	1/4W		R464	1-247-807-31	CARBON	100	5%	1/4W	
R366	1-249-429-11	CARBON	10K	5%	1/4W		R465	1-249-417-11	CARBON	1K	5%	1/4W	
							R466	1-249-441-11	CARBON	100K	5%	1/4W	
R368	1-249-435-11	CARBON	33K	5%	1/4W								
R369	1-249-435-11	CARBON	33K	5%	1/4W		R471	1-249-441-11	CARBON	100K	5%	1/4W	
R370	1-249-437-11	CARBON	47K	5%	1/4W		R472	1-249-441-11	CARBON	100K	5%	1/4W	
R371	1-249-441-11	CARBON	100K	5%	1/4W		R481	1-249-441-11	CARBON	100K	5%	1/4W	
R373	1-249-417-11	CARBON	1K	5%	1/4W		R482	1-249-401-11	CARBON	47	5%	1/4W	
							R483	1-249-437-11	CARBON	47K	5%	1/4W	
R374	1-249-429-11	CARBON	10K	5%	1/4W								
R375	1-249-429-11	CARBON	10K	5%	1/4W		R484	1-249-437-11	CARBON	47K	5%	1/4W	
R376	1-249-429-11	CARBON	10K	5%	1/4W		R485	1-249-441-11	CARBON	100K	5%	1/4W	
R377	1-249-429-11	CARBON	10K	5%	1/4W		R491	1-249-417-11	CARBON	1K	5%	1/4W	
R378	1-249-407-11	CARBON	150	5%	1/4W		R492	1-249-417-11	CARBON	1K	5%	1/4W	
							R493	1-249-407-11	CARBON	150	5%	1/4W	
R379	1-249-417-11	CARBON	1K	5%	1/4W								
R380	1-249-437-11	CARBON	47K	5%	1/4W		R494	1-247-807-31	CARBON	100	5%	1/4W	
R381	1-249-409-11	CARBON	220	5%	1/4W		R501	1-249-417-11	CARBON	1K	5%	1/4W	
R382	1-249-411-11	CARBON	330	5%	1/4W		R502	1-249-429-11	CARBON	10K	5%	1/4W	
R383	1-249-411-11	CARBON	330	5%	1/4W		R503	1-249-441-11	CARBON	100K	5%	1/4W	
							R516	1-249-429-11	CARBON	10K	5%	1/4W	
R391	1-249-437-11	CARBON	47K	5%	1/4W								
R411	1-249-429-11	CARBON	10K	5%	1/4W		R517	1-249-417-11	CARBON	1K	5%	1/4W	
R412	1-249-415-11	CARBON	680	5%	1/4W		R518	1-249-401-11	CARBON	47	5%	1/4W	
R413	1-249-415-11	CARBON	680	5%	1/4W		R525	1-247-807-31	CARBON	100	5%	1/4W	
△ R414	1-217-639-00	FUSIBLE	2.2	5%	1/4W	F	R526	1-249-429-11	CARBON	10K	5%	1/4W	
							R527	1-249-429-11	CARBON	10K	5%	1/4W	
R415	1-249-415-11	CARBON	680	5%	1/4W								
R416	1-249-415-11	CARBON	680	5%	1/4W		R528	1-247-903-00	CARBON	1M	5%	1/4W	
R431	1-247-887-00	CARBON	220K	5%	1/4W		R601	1-249-413-11	CARBON	470	5%	1/4W	
R432	1-247-887-00	CARBON	220K	5%	1/4W		R603	1-249-437-11	CARBON	47K	5%	1/4W	
R433	1-247-887-00	CARBON	220K	5%	1/4W		R604	1-249-413-11	CARBON	470	5%	1/4W	
							R661	1-247-903-00	CARBON	1M	5%	1/4W	
R434	1-249-441-11	CARBON	100K	5%	1/4W								
R441	1-249-429-11	CARBON	10K	5%	1/4W		△ R902	1-212-873-11	FUSIBLE	47	5%	1/4W	F
R442	1-249-429-11	CARBON	10K	5%	1/4W		R903	1-260-111-11	CARBON	10K	5%	1/2W	
R443	1-249-429-11	CARBON	10K	5%	1/4W		R904	1-249-433-11	CARBON	22K	5%	1/4W	
R444	1-249-429-11	CARBON	10K	5%	1/4W		R905	1-249-425-11	CARBON	4.7K	5%	1/4W	
							R906	1-249-433-11	CARBON	22K	5%	1/4W	
R445	1-249-433-11	CARBON	22K	5%	1/4W								
R446	1-249-401-11	CARBON	47	5%	1/4W		R907	1-249-437-11	CARBON	47K	5%	1/4W	
R447	1-249-441-11	CARBON	100K	5%	1/4W		R911	1-247-807-31	CARBON	100	5%	1/4W	
R449	1-249-441-11	CARBON	100K	5%	1/4W		R912	1-247-807-31	CARBON	100	5%	1/4W	
R450	1-249-417-11	CARBON	1K	5%	1/4W		R913	1-249-401-11	CARBON	47	5%	1/4W	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

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Ref. No.	Part No.	Description			Remark
R914	1-249-409-11	CARBON	220	5%	1/4W
R915	1-249-433-11	CARBON	22K	5%	1/4W
R917	1-249-431-11	CARBON	15K	5%	1/4W
R918	1-249-425-11	CARBON	4.7K	5%	1/4W
R923	1-249-401-11	CARBON	47	5%	1/4W
R924	1-249-409-11	CARBON	220	5%	1/4W
R927	1-249-431-11	CARBON	15K	5%	1/4W
△ R931	1-219-123-11	FUSIBLE	0.47	5%	1/4W F
R981	1-249-411-11	CARBON	330	5%	1/4W
R982	1-249-409-11	CARBON	220	5%	1/4W
R983	1-249-409-11	CARBON	220	5%	1/4W
R984	1-249-413-11	CARBON	470	5%	1/4W
R985	1-249-409-11	CARBON	220	5%	1/4W
R986	1-249-417-11	CARBON	1K	5%	1/4W
R991	1-249-429-11	CARBON	10K	5%	1/4W
R992	1-249-427-11	CARBON	6.8K	5%	1/4W
R998	1-249-409-11	CARBON	220	5%	1/4W
R999	1-247-739-11	CARBON	100	5%	1/2W
R1519	1-249-421-11	CARBON	2.2K	5%	1/4W
< VARIABLE RESISTOR >					
RV451	1-241-765-11	RES, ADJ, CARBON 22K			
< RELAY >					
RY651	1-515-803-11	RELAY			
< VIBRATOR >					
X301	1-567-816-11	VIBRATOR, CRYSTAL (18MHz)			
X302	1-567-815-11	VIBRATOR, CRYSTAL (22MHz)			
X303	1-567-814-11	VIBRATOR, CRYSTAL (24MHz)			

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